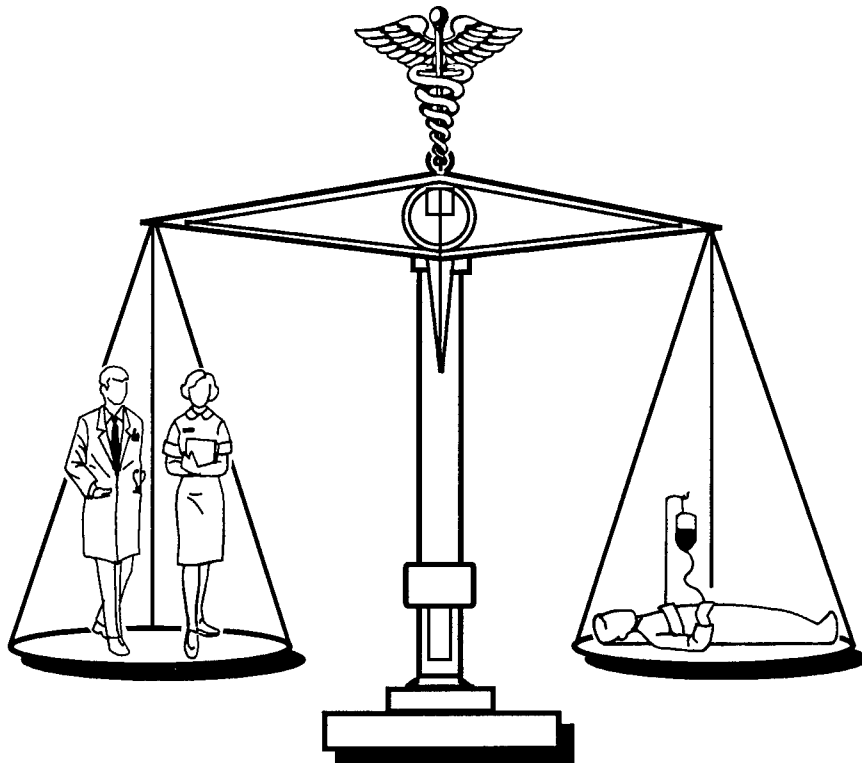


THE WORKLOAD MANAGEMENT SYSTEM FOR NURSING



19980924 078

HEADQUARTERS, DEPARTMENT OF THE ARMY

APPROVED FOR PUBLIC RELEASE ;
DISTRIBUTION IS UNLIMITED

NOVEMBER 1990

FIELD MANUAL }
No. 8-501

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 28 November 1990

THE WORKLOAD MANAGEMENT SYSTEM FOR NURSING

Approved for public release;
distribution is unlimited

PREFACE

Purpose and Scope

This manual is for the use of all personnel who work with the Workload Management System for Nursing (WMSN). It is a reference that explains—

- a. Basic concepts of the system.
- b. Uses of WMSN information.
- c. Accountability for the system.
- d. The automated system.
- e. Interrater (IRR) reliability testing.
- f. Manpower staffing standards for inpatient nursing units.

Overview

The WMSN was a joint effort of the U.S. Army Nurse Corps and the U.S. Navy Nurse Corps to develop a patient classification system that would capture nursing workload based on patient acuity and provide guidelines for effective and efficient allocation and utilization of personnel. Since its implementation in 1985, the WMSN has evolved into a multiple purpose nursing management information system. In December 1986, The U.S. Army Manpower Requirements and Documentation Agency approved incorporation of the WMSN into the Manpower Staffing Standards System (MS-3). As an MS-3 staffing standard, information generated by the system is used to determine manpower requirements for inpatient nursing units Army-wide. In March 1989, the Office of the Assistant Secretary of Defense, Health Affairs, adopted the WMSN as the basis of the Joint Manpower Staffing Standards for all three Services.

User Comments

You can help improve this manual. If you find any mistakes or if you know a way to improve procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) to: HQDA (DASG-HCM), ATTN: Program Manager, WMSN, 5109 Leesburg Pike, Falls Church, VA 22041-3258. A reply will be furnished directly to you.

TABLE OF CONTENTS

		Paragraph	Page
Chapter	1. FUNDAMENTALS OF THE WORKLOAD MANAGEMENT SYSTEM FOR NURSING		
	Dynamics of the WMSN	1-1	1-1
	WMSN Concepts	1-2	1-2
	Uses of WMSN Information	1-3	1-3
	Accountability for the WMSN	1-4	1-4
	Legal Implications of the WMSN	1-5	1-7
	2. UNIFORM CHART OF ACCOUNTS PERSONNEL UTILIZATION SYSTEM PATIENT ACUITY (UCAPERS PA) MODULE FOR THE WMSN (RCS MED-400)		
	Overview	2-1	2-1
	General Information	2-2	2-1
	Forms Used with the WMSN	2-3	2-7
	AQCESS and UCAPERS Interface	2-4	2-7
	Procedure for Patient Classification	2-5	2-7
	Procedure for Using the UCAPERS PA Module	2-6	2-7
	Specific Reporting Requirements	2-7	2-8
	On Demand Report Capability	2-8	2-9
	UCAPERS PA Reports	2-9	2-9
	WMSN Append or Print Utility Program	2-10	2-26
	Archiving WMSN Data	2-11	2-26
	How Long to Keep WMSN Information	2-12	2-26
	What to Do When the Automated System Goes Down	2-13	2-26
	3. GUIDELINES FOR USE OF THE CRITICAL INDICATORS		
Section I.	Introduction		
	General Information	3-1	3-1
	Operational Descriptions	3-2	3-4
II.	General Critical Indicators		
	Vital Signs	3-3	3-4
	Monitoring	3-4	3-6
	Activities of Daily Living	3-5	3-8
	Feeding	3-6	3-13
	IV Therapy	3-7	3-14
	Treatments, Procedures, and Medications	3-8	3-16
	Respiratory Therapy	3-9	3-21
	Teaching	3-10	3-23
	Emotional Support	3-11	3-23
	Continuous	3-12	3-23
III.	Psychiatric Critical Indicators		
	Vital Signs	3-13	3-24
	Monitoring	3-14	3-24
	Activities of Daily Living	3-15	3-25
	Feeding	3-16	3-28
	Treatments, Procedures, and Medications	3-17	3-28
	Therapeutic Interventions and/or Activities	3-18	3-32
	Teaching	3-19	3-33
	Continuous	3-20	3-33
Chapter	4. INTERRATER RELIABILITY TESTING		
	Purpose	4-1	4-1
	Principles of IRR	4-2	4-1
	Policies for Establishing and Maintaining IRR	4-3	4-1
	Procedure for Conducting Quarterly IRR	4-4	4-1
	5. THE MANPOWER STAFFING STANDARD SYSTEM (MS-3)		
	Overview	5-1	5-1
	Responsibilities for WMSN Data and the MS-3 Application	5-2	5-1
	MS-3 Standards Application	5-3	5-2
	Completion of DA Form 140-4 (Manpower Survey Report—Schedule X—Manpower and Workload Data) (RCS CSGPA-1302)	5-4	5-3
	Determination of MS-3 Recommended Staffing	5-5	5-3
Appendix	A. REFERENCES		A-1
	B. MS-3 PERSONNEL REQUIREMENTS CHARTS		B-1
Glossary		GLOSSARY-1
Index		INDEX-1

CHAPTER 1

FUNDAMENTALS OF THE WORKLOAD MANAGEMENT SYSTEM FOR NURSING

1-1. Dynamics of the WMSN

The WMSN is an information system for determining staffing requirements based upon patient care needs. Figure 1-1 shows how the system operates. The process begins with daily classification of patients into categories of care, based on their direct nursing care requirements. The hours of nursing care required and the recommended number and mix of personnel needed to meet these requirements are then calculated based on the number of patients in each category. The actual number and mix of personnel available is then compared with the WMSN

required staffing to determine if staffing levels are above, below, or within the required number. If staffing levels for the workload to be accomplished differ from the WMSN required levels, staffing or workload levels can be adjusted to balance the deficiencies. Other variables in the allocation of personnel or workload include nursing judgment, knowledge of the experience level of the unit staff, and current information on undocumented workload factors.

a. Monthly, the average number of patients per category and the WMSN required number and mix of personnel are monitored to identify trends in work-

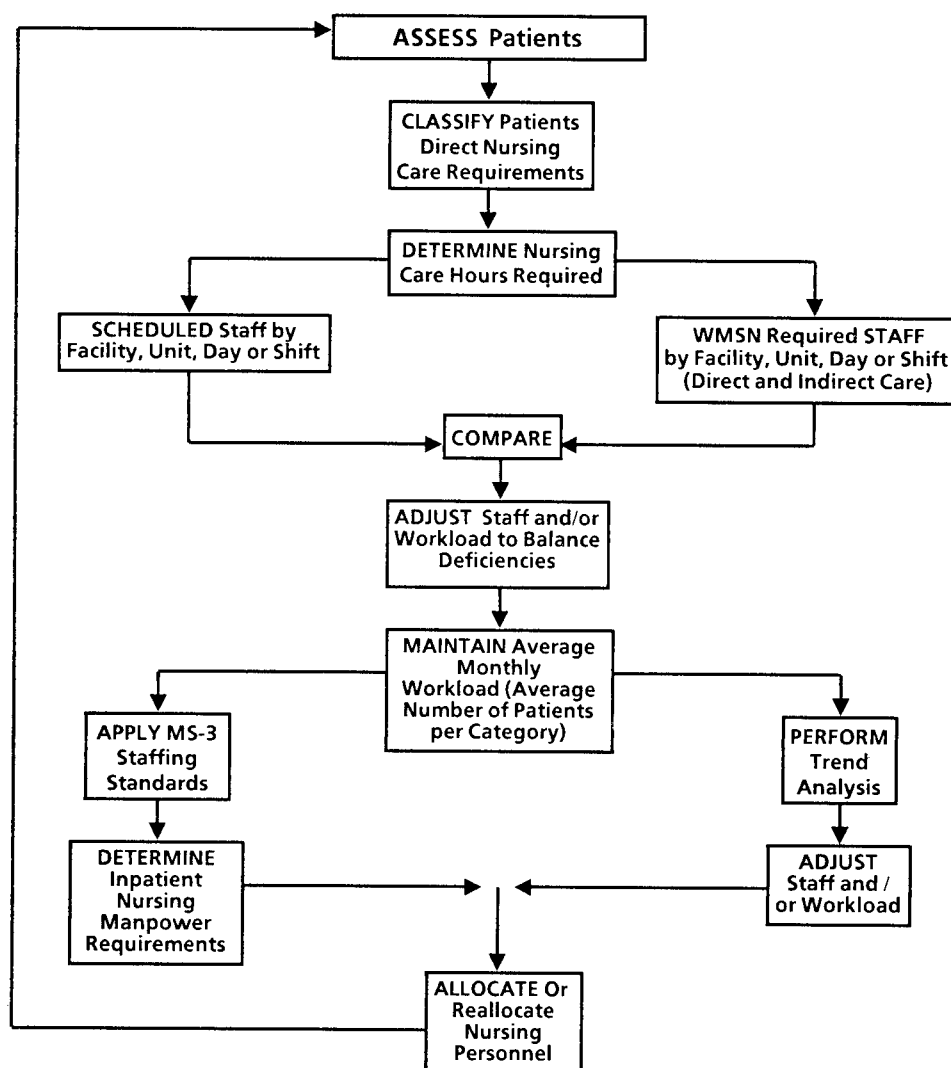


Figure 1-1. Dynamics of the Workload Management System for Nursing.

load and staffing. Based on trend analysis, distribution of personnel or workload may be modified to enhance productivity and promote quality patient care. Annually, the MS-3 standards for inpatient nursing units are applied to determine nursing manpower requirements for each type of unit included in these standards. The workload factor for determination of manpower requirements using the MS-3 standards is the monthly average number of patients per category of acuity. The resulting nursing manpower requirements are then documented in a table of distribution and allowances (TDA) for use at the major Army command (MACOM) and medical treatment facility (MTF) levels; and in the personnel management authorization document (PMAD) for use by the U.S. Total Army Personnel Command in making personnel assignments.

b. The WMSN is a patient classification system that has become an essential management tool serving multiple functions. The purposes of this system are to determine nursing manpower requirements and to determine and justify the number and mix of personnel required for nursing care.

1-2. WMSN Concepts

a. *Overall system concepts.* The system is a factor evaluative patient acuity classification system. The following 10 concepts are used in determining the structure of the WMSN. The system—

- (1) Is linked to direct patient care.
- (2) Includes indirect care time.
- (3) Is prospective.
- (4) Is comprehensive but simple.
- (5) Identifies needed available staff time.
- (6) Provides time for unit administration and management.
- (7) Is the basis for the determination of nursing manpower requirements.
- (8) Is reliable.
- (9) Is valid.
- (10) Is verifiable.

b. *The WMSN is linked to direct patient care.* The time nursing personnel spend providing direct nursing care to a patient is the bedrock of nursing and the WMSN. The WMSN is designed to categorize patients based upon the amount of nursing care time they will require within the next 24 hours. This is based on an estimate of direct bedside time required for each individual patient. The critical indicators of the WMSN are direct nursing care activities that have been documented in time studies. The system assesses direct care time needed for a group of patients on a nursing unit. An indirect care time factor is included to determine required available staff time.

c. *The WMSN allows time for indirect care.* Staff time necessary for indirect nursing care is included in the WMSN staffing formulas. The percentage of staff time spent in indirect care activities was determined

by research. The work sampling technique used in the research addressed the variety of indirect care activities that occur daily on a nursing unit. These include time for activities in support of a direct care task such as administering medications, as well as administrative activities such as time to answer the phone, to give a change of shift report, and to conduct staff meetings.

d. *The WMSN is prospective.* The system was intentionally designed to be prospective to ensure that future staffing requirements would be based on actual patient care needs rather than on the care that was provided by available staff in the past. Retrospective workload can only reflect what was done, not what was required and should have been provided. By designing the WMSN to provide an estimate of staff requirements for the next 24 hours, it becomes a valuable management tool for making staffing decisions. The only critical indicator that may be counted retrospectively is the 12 points allocated for a patient admission.

e. *The WMSN is comprehensive yet simple.* Nurses perform a variety of bedside care activities from simple, concrete tasks such as raising and lowering a bed siderail to complex, nebulous tasks such as providing emotional comfort to a dying patient. Prior research documented mean times for 357 distinct nursing tasks. It was believed that it would be an administrative burden to keep track of all these activities for every patient. Additional research was undertaken to reduce the 357 nursing tasks to as few as possible, while still placing patients in distinct categories. Direct care nursing activities that required 15 minutes (min) of bedside time in a 24-hour period were identified as critical indicators. Research showed that this simplified task list allowed nurses to classify patients into the same categories as did accounting for all 357 nursing tasks. From these categories, an accurate estimate of staff time can be calculated. Activities that require less than 15 min of care time in a 24-hour period are not significant in the determination of a patient's acuity category. In the WMSN, 1 point equals 7.5 min of care, 2 points equal 15 min of care, etc. Only one critical indicator has a point value of less than 2 points. This critical indicator, vital signs (VS) q.i.d. (4 times a day) or less, is the only exception to the 15-min rule.

f. *The WMSN quantifies the number of nursing personnel that must be available for patient care.* The WMSN determines how many staff members are needed on a particular nursing unit to provide care during a 24-hour period. Monthly WMSN data are used to calculate the total number of personnel required to staff a unit, allowing the time for personnel leaves, sick time, in and out processing, mandatory military training, organizational duties, and other miscellaneous job requirements. This time, called nonavailable time, is a constant that has been

determined by the Department of Defense (DOD) for use by all the Services.

g. The WMSN provides staff time for administration and management of a nursing unit. The head nurse (HN) and wardmaster (WM) positions on each nursing unit are recognized as constant requirements for unit administration and management, in addition to personnel requirements for direct patient care. It is recognized that these personnel also participate in direct patient care in times of unexpected workload. In this way, they also function as a mechanism to offset periods of unpredicted increases in nursing workload.

h. The WMSN is the basis for determining nursing manpower requirements. WMSN data are used in the application of the MS-3 standards for inpatient nursing. This means that WMSN data are used to calculate the nursing manpower requirements for each inpatient unit. WMSN data for each month are placed into a staffing formula that includes the non-available time factor. This formula calculates the number of staff members required to manage the workload of that unit. Under the MS-3 standard, each unit should be authorized and staffed to the level of requirements determined by the WMSN. Staffing levels are based on the average workload. MS-3 standards do not provide requirements for staffing peak periods. This is managed at the facility level.

i. The WMSN is reliable. It is important that any system be consistent. Research shows that the WMSN is reliable; that is, it can be used by two independent nurse classifiers on the same patient with high category agreement. Maintaining consistent use of this classification system throughout the Army is very important to the continued accuracy of the workload data. For this reason, quarterly IRR tests must be done on all nursing units to ensure that patients are being correctly and consistently categorized. Should the IRR score drop below 80 percent, actions must be undertaken to identify the cause and correct the problem. The test is repeated at least monthly until the IRR score is 80 percent or above.

j. The WMSN is valid. The WMSN measures what it is supposed to measure, providing an accurate measurement of required staff.

k. The WMSN's acuity category for each patient must be documented in the inpatient medical record. Inpatients are classified into one of six categories of acuity. Daily, each patient's acuity category and the initials of the registered nurse (RN) who classified the patient are documented in the inpatient treatment record on DA Form 4677 (Therapeutic Documentation Care Plan (Non-Medication)). Because this system is used to determine personnel requirements, the U.S. Army Force Integration Support Agency (USAFISA) requires an audit trail. Documentation in the inpatient record fulfills this requirement and

eliminates the need for long-term maintenance of general and psychiatric patient acuity worksheets.

1-3. Uses of WMSN Information

The WMSN provides the nurse manager with a wealth of objective information that was previously unavailable for decisionmaking and action. Possible uses of the WMSN information are described below. The uses below are not all inclusive.

a. Nursing unit level.

(1) *In personnel management*, it may be used to—

(a) Justify to the chief, nursing administration for evenings and nights, the need for additional personnel.

(b) Justify the removal of unit personnel from additional duty rosters due to staffing shortages.

(c) Improve the utilization of personnel across all shifts.

(2) *In workload management*, it may be used to—

(a) Identify the need to transfer or admit patients to a unit with a lesser workload.

(b) Monitor the currency of nursing and medical orders.

(3) *In staff development* it may be used to—

(a) Teach staff nurses to use the WMSN data for resources management.

(b) Encourage sharing of staff between units without resentment.

(c) Evaluate documentation of nursing care and patient classification.

(4) *In unit management*, it may be used to—

(a) Determine staffing requirements.

(b) Document workload and staffing trends.

(c) Justify the need for personnel resources.

b. Section level.

(1) *In personnel management*, it may be used to—

(a) Determine the nursing unit from which to allocate staff for temporary activities, such as patient transport.

(b) Justify requests for overtime and compensatory time.

(c) Adjust the number and mix of staff between units.

(2) *In workload management*, it may be used to—

(a) Recommend changes to the surgery schedule.

(b) Adjust or redirect admissions to units.

(3) *In staff development*, it may be used to teach staff management of personnel resources.

(4) *In section management*, it may be used to—

(a) Justify special staffing needs.

(b) Document staffing patterns and workload trends.

(c) Provide objective data for quality assurance monitoring.

c. Department of nursing (DON) and MTF level.

(1) *In personnel management*, it may be used to—

(a) Justify temporary overhires, part time staff, when actually employed (WAE) staff, and overtime.

(b) Initiate and/or expand a nursing pool.

(c) Adjust staffing on all shifts.

(d) Justify exclusion from a hiring freeze.

(e) Make initial personnel assignments to a unit.

(2) *In workload management*, it may be used to—

(e) Adjust the operating room (OR) schedule for more efficient scheduling with unit staff availability.

(b) Implement a selective admissions process on various units when maximum staffing levels are attained.

(c) Justify combining units temporarily, such as for a holiday period, or permanently.

(3) *In staff development*, it may be used to—

(a) Determine areas for cross-training.

(b) Develop the staff's resource management skills.

(c) Orient administrative staff to the manpower and management implications of the system.

(4) *In department and MTF management*, it may be used to—

(a) Report nursing manpower and workload statistics to the command group, other key personnel, and the MACOM.

(b) Support and substantiate requests for additional nursing assets; for example, through the program budget advisory committee process.

(c) Provide an overview of staffing trends and patterns.

(d) Realign assets on the TDA.

(e) Provide information for the risk management and quality assurance program.

(f) Plan the departmental budget.

(g) Determine the MS-3 staffing standard nursing manpower requirements and project staff for new missions.

(h) Allocate nursing authorizations.

(i) Manage the civilian personnel budget.

e. MACOM level.

(1) *In personnel management*, it may be used to—

(a) Compare nursing staff among facilities.

(b) Recommend exclusion of nursing from hiring freezes when needed.

(c) Realign requirements and authorizations among facilities.

(d) Provide justification for increase in authorizations, as a MACOM submission in the Total Army Analysis (TAA).

(2) *In workload management*, it may be used to—

(a) Recommend adjustment of workload among facilities.

(b) Analyze and evaluate facilities that have had to limit admissions or implement a selective admissions process.

(c) Recommend combining units (temporarily such as for a holiday period or permanently) when decreased workload does not justify their continued operations.

(3) *In staff development*, it may be used to orient selected staff members to the manpower and staffing implications of the system.

(4) *In MACOM management*, it may be used to—

(a) Report nursing manpower and workload statistics to Office of The Surgeon General (OTSG) key personnel.

(b) Substantiate nursing resource management decisions.

(c) Provide an overview of staffing trends and patterns.

(d) Assess nursing requirements and allocate authorizations.

(e) Project staff for new missions.

(f) Determine the MS-3 staffing standards nursing manpower requirements.

(g) Evaluate nursing resource management among facilities.

(h) Monitor and compare acuity trends among facilities.

f. Army staff level. WMSN information may be used to—

(1) Monitor and compare utilization of nursing resources.

(2) Monitor the MS-3 application for recommendations to The Surgeon General regarding redistribution of authorizations among MACOMs, based on the application results.

(3) Recommend adjustment of workload among MACOMs.

(4) Report nursing manpower and workload statistics to Department of the Army (DA) and OTSG key personnel.

(5) Provide an overview of staffing trends and patterns AMEDD-wide.

(6) Project staff for new missions.

(7) Evaluate MACOM nursing resource management.

1-4. Accountability for the WMSN

Data generated by the WMSN is used for decision-making at unit, MTF, MACOM, OTSG, and DOD levels. As the basis of the MS-3 staffing standard for inpatient nursing units, the WMSN is instrumental in determining manpower requirements for professional and paraprofessional nursing personnel throughout the (U.S.) Army Medical Department (AMEDD). The managerial and manpower implications of this system necessitate that accountability for accuracy of

the data be given to the professional nurses who classify patients and to all levels of management. The attendant expectation is that the task of ensuring accuracy of the WMSN data is now a part of the professional role. The resource management staff (force development and the nurse methods analyst) provides additional review and analysis of the data. Each of these elements working together is critical to the application and maintenance of the system and the staffing standard. Responsibilities for the WMSN for which professionals are accountable are described below.

a. The clinical staff nurse—

(1) Classifies each patient daily into 1 of 6 acuity categories. This objective and prospective classification is the most important aspect of the system.

(2) Documents the acuity category, date and initials of the RN performing classification on DA Form 4677 (see fig 2-3). By documenting the patient acuity category in the inpatient medical treatment record, the RN becomes legally accountable for the accuracy of the categorization. Inflation of the system by selecting critical indicators that are not required or ordered becomes falsification of a legal document and holds the same implication as falsification of information on any other official document. Documentation of the category of patient acuity in the patient's medical record provides a mechanism for IRR testing and an audit trail for USAFISA.

b. The clinical head nurse (CHN)—

(1) Assures the accuracy of WMSN information by ensuring that clinical staff nurses know the mechanics of classification and by checking monthly data for correctness.

(2) Maintains WMSN information. The average monthly number of patients by category of acuity is vital for the MS-3 application. These data may be stored in written or automated form.

(3) Monitors the nursing unit's IRR testing results and implements actions to correct identified problems.

(4) Includes in the evaluation of each staff nurse his or her ability to use the WMSN.

c. The chief, clinical nursing service or section—

(1) Reviews unit WMSN data to identify patient categories that are out of line with the usual workload of a given unit. This may be done by performing periodic spot checks on each unit to randomly review patient medical records to validate appropriateness of the categorization and by review of the monthly patient acuity report.

(2) Monitors the monthly average acuity of each unit to identify reasons for fluctuations.

(3) Educates physicians who admit patients to the section about the managerial and manpower implications of the WMSN. Their understanding and cooperation can significantly enhance use of the system to promote nursing productivity and the delivery of safe, quality patient care.

(4) Includes in the valuation of the CHNs the accuracy and appropriate uses of the WMSN information; that is, positive or negative performance in its use or maintenance.

d. The IRR program coordinator—

(1) Ensures that IRR testing is conducted at least quarterly on each inpatient unit for which the WMSN is applicable. (See chap 4.)

(2) Structures the IRR program so that—

(a) Initial IRR is established for all new RNs on each nursing unit for which WMSN is applicable.

(b) The IRR is established for the pool of experienced raters.

(c) Quarterly IRR is conducted by experienced raters.

(d) Tabulation and reporting of IRR is done in a timely manner and the results are shared with the unit, the section or service chief, and the chief nurse (CN).

(e) If a unit fails to achieve a minimum of 80 percent agreement on the quarterly IRR, the service or section chief is involved in the problem resolution. In-depth discussion, unit meetings, reteaching, and retesting are appropriate actions.

(f) Monthly IRR testing is instituted until an IRR of 80 percent agreement by category is achieved.

e. The chief, nursing education and staff development—

(1) As an education administrator, is responsible for development of WMSN education commensurate with the levels of expertise and responsibilities of the nursing staff.

(2) Directs educational endeavors to the following:

(a) *New personnel.* Presents a standard program to all new RNs who will be using the WMSN. The program includes the principles and mechanics of patient classification, policies for use of WMSN data, IRR procedures, and responsibilities for accuracy of patient acuity data.

(b) *Professional RN staff.* Provides annual inservice education. Topics should be based upon identified problem areas, observed and/or perceived needs, trends noted through IRR testing, and updates to the system.

(c) *Nursing management.* Presents the WMSN as a management tool for all levels of nurse managers. Topics may include the following: Uses of the WMSN data at various levels of nursing management, the manpower application, and managerial accountability.

(d) *Other personnel.* Provides educational programs aimed at specific populations such as physicians, resource management staff, and other administrative personnel.

f. The chief, department of nursing (CDON)—

(1) Monitors accuracy and the appropriateness of uses of WMSN information.

(2) Is responsible for distribution or redistribution.

tion of nursing personnel on a short- and long-term basis to offset nursing care hours (NCHs) deficits.

(3) Monitors monthly comparisons of WMSN requirements to the requirements, authorization, and assigned numbers documented in the TDA, unit IRR scores, and unit acuity for major changes and trends within the facility.

(4) Educates the commander, deputy chief for clinical services, deputy chief of administration, and others involved in hospital administration about the managerial and manpower implications of the WMSN.

(5) Reports WMSN manpower and workload statistics to the command group.

(6) Facilitates the development of regulations, policies, and procedures in collaboration with individuals affected by the system to promote use of the data to balance workload and manpower.

g. The nurse methods analyst (NMA) is in a unique position to share with and interpret the WMSN data for the chief, resource management and other administrative personnel within the hospital. As a consultant to all levels of nursing management, the NMA can be instrumental in recommending appropriate uses of the data, assisting HNs with monitoring workload and staffing trends, and recommending strategies for capture of workload not captured by the WMSN.

(1) *The facility NMA—*

(a) Functions as a liaison between the resource management staff and the CDON.

(b) Monitors changes in workload and staffing.

(c) Monitors changes in the MS-3 standard yield for each inpatient nursing unit.

(d) Provides trend analysis and identifies factors contributing to fluctuations in workload for the resource management staff and CDON.

(2) *The MACOM NMA—*

(a) Functions as the WMSN point of contact (POC) for WMSN workload and manpower issues, MACOM-wide.

(b) Analyzes MTF data for consistency and comparability to like-size units with similar missions and beneficiary population.

(c) Monitors at the MACOM level changes in acuity of like units and IRR scores, and provides information and findings to the MACOM CN and Chief, Army Nurse Corps (AN).

(d) Serves as a consultant for nursing and force development on manpower and staffing aspects of the WMSN.

(e) Assists MTFs with application of the manpower standards.

(f) Reviews and analyzes MS-3 applications to provide MACOM and OTSG with short- and long-term effects and requirements.

(3) *The Health Care Systems Support Activity (HCSSA) NMA—*

(a) Functions as the WMSN POC for automation issues related to the WMSN, AMEDD-wide.

(b) Monitors the automated systems and their interface with automated data processing personnel to troubleshoot and correct problems.

(c) Recommends improvements in system automation based on input from users at all levels.

(d) Develops and coordinates system enhancement and new components.

(e) Communicates automation updates, changes, or problems to the OTSG WMSN Program Manager, MACOM CN and NMA, and MTF CNs and automation management officers (AMOs).

(f) Manages configuration control of the WMSN.

h. The Resource Management Office (RMO) staff monitors the variances in the MS-3 inpatient staffing standards yield compared to the current number of approved requirements, authorizations, and assigned personnel. Applications of the MS-3 inpatient standards are generated monthly by the Uniform Chart of Accounts Personnel Utilization System (UCAPERS) Patient Acuity Module to facilitate review and analysis of this information.

i. The MACOM CN (MCN)—

(1) Ensures the effective use of WMSN information in decisionmaking processes at the MACOM level, such as to advise the MACOM staff (for example, the program budget advisory committee) on the most efficient and effective distribution of nursing authorizations and to provide objective input for prioritizing MACOM TAA issues.

(2) Educates the MACOM commander and other MACOM staff members about the managerial and manpower implications of WMSN and communicates appropriate information routinely.

(3) Monitors utilization of nursing resources among facilities and initiates inquiries when data trends suggest inefficient utilization.

j. The WMSN point of contact for education, Academy of Health Sciences, U.S. Army (AHS)—

(1) Interfaces with the WMSN program manager (PM) for information on enhancements, updates, and expansion of the system.

(2) Facilitates incorporation of WMSN information into appropriate courses at the AHS.

(3) Serves as consultant for multimedia educational packages for the field.

k. The WMSN PM, OTSG—

(1) Is responsible for total system management, to include system maintenance and development and coordination of system refinements and new system components designed to assess nursing personnel requirements and staffing AMEDD-wide.

(2) Maintains WMSN data for the AMEDD at this level.

(3) Monitors changes in the MS-3 requirements compared to current requirements, authorization,

and assigned personnel for each MACOM and tracks worldwide trends.

(4) Serves as the overall coordinator for the major system components, automation, manpower, research, and education, and associated points of contact.

(5) Is responsible for review and analysis of WMSN workload and manpower data to provide AMEDD leadership with short- and long-term effects and requirements.

1-5. Legal Implications of the WMSN

a. The WMSN information could be used by individuals to support allegations of negligent healthcare if the results of the system are ignored.

b. The WMSN is a system by which the quantity of available nurse staffing is based on identified requirements for nursing care generated to satisfy Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requirements. Experience has shown that WMSN does in fact generate accurate information upon which staffing decisions for the provision of nursing care services should be based.

c. When claims or lawsuits are filed against the Army on medical malpractice grounds, in simplest form the issues become—

(1) Has the claimant or plaintiff suffered loss or damage?

(2) Was the negligence of an employee or agent of the United States the “proximate” cause of the loss or damage?

d. Generally, the evidence relevant to the “proximate”

cause issue centers on the precise care provided the patient. Assuming the quality of nursing care was an issue in a particular case, the initial focus is likely to be the exact care provided that patient. Unless that care is in some fashion allegedly deficient, WMSN information would not be a factor. If, however, the available evidence indicates potential shortcomings in the care arguably contributing to the patient’s damages, then WMSN information could easily become an issue.

e. When the Army or its officials are sued under the Federal Tort Claims Act, the law of the State where the act or omission occurred is controlling. Therefore, different standards to determine negligence could be applied depending on the location of the medical facility and its personnel. Negligence is often determined by considering prevailing national standards or local community standards. However, hospital bylaws, regulations, or accreditation guidelines can also be admissible as evidence of negligence.

f. When a hospital adopts a system to generate a description of necessary staff requirements, it must anticipate significant adverse inferences if that system regularly depicts shortages and no leadership corrective actions are taken. This does not mean that system depicted shortages necessarily mean liability in lawsuits. Short-term shortages addressed as they arise would be expected of such a process and would be easy to address in the context of litigation. Longer term shortages, however, would generate settings in which defense of negligence claims would be far more difficult.

CHAPTER 2

UNIFORM CHART OF ACCOUNTS PERSONNEL UTILIZATION SYSTEM PATIENT ACUITY (UCAPERS PA) MODULE FOR THE WMSN (RCS MED-400)

2-1. Overview

a. The WMSN is a nursing management information system that provides information to five levels of management: The nursing unit, facility, MACOM, OTSG, and DOD. Automated support has been provided to assist nurse managers and staff in managing data volume and information flow.

b. The Medical Expense and Performance Reporting System (MEPRS) is a DOD automated system that collects expense, manpower, and performance data by facility. Each service collects this data and reports through service channels to DOD.

c. For the AMEDD, an automated system called the UCAPERS is used to collect and report personnel utilization and expense data for MEPRS. The UCAPERS PA module is a subsystem of UCAPERS, developed to provide automated support for the WMSN.

d. OTSG is the WMSN functional proponent, and is the office responsible for system policies. HCSSA is the technical proponent, and is the agency responsible for automation of the WMSN. As the technical proponent, HCSSA maintains the software in support of the WMSN. Changes to the software are done centrally and released to all facilities at the same time. Technical questions or problems related to the automation of the system should be referred to: Commander, HCSSA, ATTN: HSHS-MW (WMSN-POC), Fort Sam Houston, TX 78234-6050. Direct all other questions to the MACOM NMA or WMSN POC.

2-2. General Information

a. WMSN is applicable to the following units: Medical/surgical, intensive care, ante/postpartum, pediatric, newborn nursery, neonatal intensive care (NIC), and psychiatric (does not apply to resident treatment facilities). Only these types of patients are classified for inclusion in WMSN acuity data.

b. Recovery room and labor and delivery patients are not presently included in the WMSN. In some instances, nursing care will be provided for these patients on the units covered by the WMSN. These patients should not be included in the WMSN acuity data. Research is underway to develop a classification system and a staffing standard for these areas. Until these two classification systems are implemented, keeping a record of this workload is recommended if the workload would result in additional manpower requirements. Consult with local resource

management personnel and AR 570-5, chapter 4, for specific guidance.

c. Outpatients who receive nursing care on inpatient units and same day surgery patients who are discharged the same day as admitted are not included in the WMSN. Keeping a record of this workload is recommended if the workload would result in additional manpower requirements. Consult with local resource management personnel and AR 570-5, chapter 4, for specific guidance.

d. All patients projected to be on the unit census at the designated time for the facility UCAPERS PA batch cycle are to be classified.

e. Patients are classified daily by an RN. The RN classifying a patient may enter the acuity codes for the critical indicators directly into the computer, select the critical indicators from a list presented on screen, or record them on DD Form 2551 TEST (Patient Acuity Worksheet (General)) or DD Form 2552 TEST (Patient Acuity Worksheet (Psychiatric)) (figs 2-1 and 2-2) for entering into the computer at a later time.

f. The patient's acuity category should reflect the projected nursing care required for the next 24-hour period. For example, if classifying on day shift, project for evening, night, and day shifts.

g. Documents used to select critical indicators are—

(1) Unit or hospital specific standing operating procedures (SOPs).

(2) Department of nursing administrative procedures.

(3) Medical Record—Nursing Assessment and Care Plan (DA Form 3888) and Medical Record—Nursing Assessment and Care Plan (Continuation) (DA Form 3888-1).

(4) Nursing unit standards of care.

(5) Inpatient history and physical.

(6) Therapeutic Documentation Care Plan (Non-Medication) (DA Form 4677) and Therapeutic Documentation Care Plan (Medication) (DA Form 4678).

(7) Medical Record—Supplemental Medical Data (DA Form 4700).

(8) Medical Record—Vital Signs Record (SF 511).

(9) Clinical Record—Nursing Notes (SF 510).

h. The WMSN acuity category for each patient is documented daily on DA Form 4677 (fig 2-3).

i. A patient who is carried on the unit census but is on pass for 24 hours or longer is placed in category

ADDRESSOGRAPH		ENTER DATE, RN INITIALS, AND LAST FOUR SSN	
		1 Jan / 8N / 9706	
ACTIVITY CODE	SECTION 1 - CRITICAL INDICATORS	POINT VALUES	
1. VITAL SIGNS (Manual TPR, BP)			
1	Vital signs qid or less	1	
2	Vital signs q4h or x 6	2	
3	Vital signs q3h or x 8	3	
4	Vital signs q2h or x 12	4	
5	Vital signs q1h or x 24	8	
6	Rectal or axillary temp or apical pulse qid or more	2	
7	Femoral, pedal or popliteal pulses or FHT qid or more	2	
8	Tilt test q4h or more	2	
9	Post-op, post-partum, post-delivery (newborn VS)	6	
2. MONITORING			
10	Intake and output q8h	2	
11	Intake and output q2h	8	
12	Circulation or fundus checks q2h or x 12	2	
13	Neuro checks q4h or x 6	3	
14	Neuro checks q2h or x 12	6	
15	CVP or ICP (manual) q2h or x 12	2	
16	Cardiac / apnea / temp / BP monitor (not cumulative)	6	
17	Transcutaneous monitor / oximeter	6	
18	A-line or ICP monitor or Swan Ganz set-up	4	
19	A-line or ICP monitor reading q2h or x 12	2	
20	Swan Ganz PAP / PA wedge reading q4h or x 6	2	
21	Swan Ganz PAP / PA wedge reading q2h or x 12	4	
22	Cardiac output tid or x 3	2	
3. ACTIVITIES OF DAILY LIVING			
23	Care - age 5 or less (infant / toddler)	6	
24	Care - age 6 or more - Self / Minimal	2	
25	Care - age 6 or more - Assisted	6	
		SUBTOTAL A POINT VALUE	

DD Form 2551 TEST, NOV 89

PATIENT ACUITY WORKSHEET (GENERAL)		ENTER DATE, RN INITIALS, AND LAST FOUR SSN	
		1 Jan / 8N / 9706	
ACTIVITY CODE	SECTION 1 - CRITICAL INDICATORS (Continued)	POINT VALUES	
3. ACTIVITIES OF DAILY LIVING (Continued)			
26	Care - age 6 or more - Complete	14	
27	Care - age 6 or more - Total	32	
28	Extra linen change and partial bath x 2 per shift	4	
29	Turning frame (2 staff members) q2h	14	
30	Peds recreation / observation - age 0 - 12	8	
4. FEEDING			
31	Spoon feed meals - age 6 or more - x 3	6	
32	Spoon feed meals - age 5 or less - x 3	10	
33	Infant / neonate bottle x 1 feeding	2	
34	Infant / neonate bottle q4h or x 6	12	
35	Infant / neonate bottle q3h or x 8	16	
36	Tube feed bolus q4h or x 6	5	
37	Tube feed bolus q3h or x 8	8	
38	Tube feed bolus q2h or x 12	10	
39	Tube feed - adult / child / neonate - (continuous) q bag change	2	
5. IV THERAPY			
40	Start IV	2	
41	Change bottle / bag / volutrol bid or less	4	
42	Change bottle / bag tid or qid	6	
43	Change bottle / bag x 5 or more	8	
44	Heparin lock or Broviac q4h or x 6	4	
45	IV Medication q8h or x 3	2	
46	IV Medication q6h or x 4	3	
47	IV Medication q4h or x 6	4	
48	Blood products per unit	2	
49	Infusion controller / pump (each)	2	
6. TREATMENTS / PROCEDURES / MEDICATIONS			
50	Insert NG	2	
51	Pre-op prep / enema / Ace wraps / support hose	2	
52	Catheterization - Foley / straight	2	
53	Tube care (exclude Trach) x 2	2	
54	Dressing - simple 5 - 7 mins x 2	2	
		SUBTOTAL B POINT VALUE	

Page 1 of 2 Pages

Figure 2-1. Sample DD Form 2551 TEST (Patient Acuity Worksheet (General)).

Figure 2-1. Sample DD Form 2551 TEST (Patient Acuity Worksheet (General))—Continued

PATIENT ACUITY WORKSHEET (GENERAL)				ENTER DATE, RN INITIALS, AND LAST FOUR SSN →	
ACUITY CODE	SECTION I - CRITICAL INDICATORS (Continued)	POINT VALUES			
6. TREATMENTS / PROCEDURES / MEDICATIONS (Continued)					
55	Dressing - complex 30 mins x 1	4			
56	Lab tests performed / collected on the unit x 3	2			
57	Do EKG	2			
58	Venipuncture, arterial puncture x 2	2			
59	Medications - exclude IV - 3-11 trips or q3h - q8h	2			
60	Medications - exclude IV - 12 trips or more or q2h	4			
61	Irrigations or Instillations x 4 or less	2			
62	Restraints, 2 point, 4 point, Posey	2			
63	Assist OOB chair / gurney and return, x 3	2			
64	Assist to ambulate and return, x 1	2			
65	Infant circumcision or phototherapy	2			
66	Isolation mask, gown and gloves x 8	2			
67	Chest tube insertion or lumbar puncture (assist)	4			
68	Thoracentesis or paracentesis (assist)	4			
69	Range of motion exercises x 3	4			
70	New admission - assessment and orientation	12			
71	Transfer - in-house (receiving unit only)	4			
72	Accompany patient off unit 15 minutes	2			
73	Accompany patient off unit 30 minutes	4			
74	Accompany patient off unit 45 minutes	6			
75	Other activities requiring 15 minutes	2			
76	Other activities requiring 30 minutes	4			
77	Other activities requiring 45 minutes	6			
78	Each hour requiring continuous staff attendance	8			
7. RESPIRATORY THERAPY					
79	Oxygen therapy or oxyhood	2			
80	Incentive spirometer or C&DB q4h or x 6	2			
81	IPPB or Maximist bid or x 2	2			
82	IPPB or Maximist q6h or x 4	4			
83	IPPB or Maximist q4h or x 6	6			
84	Group tent or mist tent	8			
SUBTOTAL C POINT VALUE					
DD Form 2551 TEST, NOV 89					

PATIENT ACUITY WORKSHEET (GENERAL)				ENTER DATE, RN INITIALS, AND LAST FOUR SSN →	
ACUITY CODE	SECTION I - CRITICAL INDICATORS (Continued)	POINT VALUES			
7. RESPIRATORY THERAPY (Continued)					
85	Chest pulmonary therapy bid or x 2	2			
86	Chest pulmonary therapy q6h x 4	4			
87	Chest pulmonary therapy q4h or x 6	6			
88	Suctioning q4h or x 6	2			
89	Suctioning q2h or x 12	4			
90	Ventilator	10			
91	Tracheostomy care x 3	4			
8. TEACHING					
92	Teaching - group - per hour	2			
93	Teaching - individual - per 30 minutes	4			
9. EMOTIONAL SUPPORT					
94	Patient / family support (per 30 minutes)	4			
95	Lifestyle modification (per 30 minutes)	4			
96	Sensory deprivation - blind, deaf, retarded, etc.	6			
97	Maximum points for emotional support	10			
10. CONTINUOUS					
98	Patient requiring 1:1 coverage all shifts	96			
99	Patient requiring greater than 1:1 coverage all shifts	146			
SUBTOTAL D POINT VALUE					
SUBTOTAL A POINT VALUE					
SUBTOTAL B POINT VALUE					
SUBTOTAL C POINT VALUE					
TOTAL POINT VALUE		41			
PATIENT ACUITY CATEGORY		3			
SECTION II - ADDITIONAL DATA					
1. ACUITY TABLE		2. TYPE OF PATIENT (X as applicable)			
CATEGORY	POINTS	a. MED / SURG	e. ANTEPARTUM / POSTPARTUM	f. PEDIATRIC	g. PSYCHIATRIC
0	0				
I	1-12				
II	13-31				
III	32-63				
IV	64-95				
V	96-145				
VI	146-262				

ADDRESSOGRAPH		ENTER DATE, RN INITIALS, AND LAST FOUR SSN	
ACUITY CODE	SECTION I - CRITICAL INDICATORS	POINT VALUES	
1. VITAL SIGNS (Manual TPR, BP)			
100	Vital signs qid or less	1	
101	Vital signs q4h or x 6	2	/
102	Vital signs q3h or x 8	3	
103	Vital signs q2h or x 12	4	
104	Vital signs q1h or x 24	8	
105	Tilt test q4h or more	2	
2. MONITORING			
106	Intake and output q8h	2	
107	Circulation checks q2h or x 12	2	
108	Patient checks q30 minutes x 8	8	
109	Patient checks q15 minutes x 8	16	
110	Neuro checks q4h or x 6	3	
3. ACTIVITIES OF DAILY LIVING			
111	Care - age 6 or more - Self/Minimal	2	
112	Care - age 6 or more - Assisted	6	/
113	Care - age 6 or more - Complete	14	
4. FEEDING			
114	Spoon feed or 1:1 at meals tid	6	
115	Tube feed - bolus q4h or x 6	5	
116	Escort patient to dining hall x 1	2	/
SUBTOTAL A POINT VALUE			

DD Form 2552 TEST, NOV 89

PATIENT ACUITY WORKSHEET (PSYCHIATRIC)		ENTER DATE, RN INITIALS, AND LAST FOUR SSN	
ACUITY CODE	SECTION I - CRITICAL INDICATORS (Continued)	POINT VALUES	
5. TREATMENTS / PROCEDURES / MEDICATIONS			
117	Start IV / Ace wraps / Tube care	2	
118	Dressing - simple 5 - 7 mins x 2	2	
119	Dressing - complex 30 mins x 1	4	
120	Lab tests performed / collected on the unit x 3	2	
121	Do EKG	2	
122	Venipuncture, arterial puncture x 2	2	
123	Medications - exclude IV - 3 - 11 trips or q3h - q8h	2	/
124	Medications - exclude IV - 12 trips or more or q2h	4	
125	Restraints, 2 point, 4 point, Posey	2	
126	New admission - assessment and orientation	12	
127	Transfer - between psychiatric units (receiving units only)	4	
128	Accompany patient off unit - 15 minutes	2	
129	Accompany patient off unit - 30 minutes	4	/
130	Accompany patient off unit - 45 minutes	6	
131	Other activities - 15 minutes	2	
132	Other activities - 30 minutes	4	
133	Other activities - 45 minutes	6	
134	Each hour requiring continuous staff attendance	8	
SUBTOTAL B POINT VALUE			

Page 1 of 2 Pages

Figure 2-2. Sample DD Form 2552 TEST (Patient Acuity Worksheet (Psychiatric)).

PATIENT ACUITY WORKSHEET (PSYCHIATRIC)			ENTER DATE, RN INITIALS, AND LAST FOUR SSN →	
			18-Jan-21 / 6024	
ACUITY CODE	SECTION I - CRITICAL INDICATORS (Continued)	POINT VALUES		
6. THERAPEUTIC INTERVENTIONS / ACTIVITIES				
135	Purposeful interaction - 15 minutes	2		
136	Purposeful interaction - 30 minutes	4		
137	Purposeful interaction - 45 minutes	6		
138	Purposeful interaction - 1 hour	8	2	
139	Sensory deprivation - blind, deaf, retarded, etc.	6		
140	Group activity, on unit - staff ratio 1: 4-5	2	1	
141	Group activity, off unit - staff ratio 1: 4-5	2		
142	Group activity, meeting - staff ratio 1: 4-5	2		
7. TEACHING				
143	Teaching - group per hour	2		
144	Teaching - individual per 30 minutes	4		
8. CONTINUOUS				
145	Patient requiring 1:1 coverage all shifts	96		
SUBTOTAL C POINT VALUE				
SUBTOTAL A POINT VALUE				
SUBTOTAL B POINT VALUE				
TOTAL POINT VALUE			34	
PATIENT ACUITY CATEGORY			3	

DD Form 2552 TEST, NOV 89

Figure 2-2. Sample DD Form 2552 TEST (Patient Acuity Worksheet (Psychiatric))—Continued

"0." This ensures that the number of patients classified equals the unit census. Place patients in category 0 on the day the pass begins and each subsequent day for which the pass has been ordered. On the day the patient is expected to return to the unit, classify the patient into the appropriate acuity category. For example, if a patient is on a 3-day pass beginning on Friday and ending on Sunday, the patient would be placed in category 0 on Friday and Saturday, but would be classified into the appropriate acuity category on Sunday.

j. Patients who are not classified (have no critical indicators selected) will be placed in category 0 by default.

k. Should a psychiatric patient be admitted to a medical or surgical unit or a medical or surgical patient be admitted to a psychiatric unit, both the general and psychiatric critical indicators may be used to classify the patient.

2-3. Forms Used with the WMSN

a. Use of DD Form 2551 TEST or DD Form 2552 TEST (figs 2-1 and 2-2).

(1) Use of DD Form 2551 TEST and DD Form 2552 TEST is *optional*. Critical indicators and acuity codes may be entered directly into the computer.

(2) When used, the patient acuity worksheet is completed by the RN who is responsible for the care of the patients classified. These forms may be initiated at any time, but should be reviewed and updated prior to data entry into the computer.

(3) The patient acuity worksheet is designed to accommodate five classifications of a single patient. Use the form until completed or the patient is discharged.

(4) The length of time to maintain the completed DD Form 2551 TEST and DD Form 2552 TEST is determined by local policy.

(5) DD Form 2551 TEST and DD Form 2552 TEST are to be prepared for input into the computer.

(a) Classify only one patient on each form. A space has been provided for printing the patient's identification information.

(b) Enter the date, initials, and last four digits of the social security number of the RN classifying the patient in the designated spaces.

(c) Enter the frequency of occurrence or the number of personnel required in the box to the right of each selected critical indicator within the classification date column.

(d) Use of the COMMENTS space is optional.

b. Use of DA Form 4677 (fig 2-3). Document the patient's acuity category daily in the inpatient treatment record (ITR) on DA Form 4677. Two lines of this form will be reserved for documentation of the category of acuity. Document the date in the ORDER DATE column, the classifier's initials in the CLERK/NURSE column, and write the nursing order in the RECURRING ACTIONS, FRE-

QUENCY, TIME column as follows: "WMSN Category." Enter the hour in the HR column. Fill in the DATE COMPLETED row with appropriate dates. Under the date on which the patient was classified, document the acuity category followed by the initials of the RN who classified the patient on the line beneath the acuity category (see fig 2-3).

2-4. AQCESS and UCAPERS Interface

a. Communication between the Automated Quality Care Evaluation Support System (AQCESS) and UCAPERS allows the patient demographic data entered into the AQCESS upon admission to automatically transfer to the UCAPERS WMSN demographic screen on the nursing unit. Data are transferred every 5 minutes from AQCESS to UCAPERS. The appropriate data must be entered into the AQCESS or the data will not transfer. When data errors occur, an error will be reflected on the discrepancy report printed with the batch cycle.

b. Corrections to the data are made following the procedure for entering demographic data into the UCAPERS PA module at the unit computer.

c. Demographic data may be entered into the unit computer. Should the data be unavailable from the AQCESS interface when creating the patient's acuity file, the data must be entered into the unit computer.

d. The AQCESS may experience a "down" period. Once operational status is resumed, the data will be transferred to the admitting nursing units. If the data have been entered by unit personnel, a duplicate registrar number error will appear on the discrepancy report for that day.

2-5. Procedure for Patient Classification

a. Each day, classify patients into the appropriate category of acuity by selecting the critical indicators based on the source documents listed in paragraph 2-2g.

b. Document the patient's acuity category daily in the ITR on DA Form 4677 (fig 2-3).

c. Ensure that acuity data are entered into the computer prior to the time (established by local policy) the UCAPERS PA batch cycle is run.

d. Ensure UCAPERS scheduled staff information is updated.

2-6. Procedure for Using the UCAPERS PA Module

a. General information.

(1) The UCAPERS PA software performs the calculations required to determine category of acuity, NCHs required, and staffing requirements. Each facility with UCAPERS has an on-line tutorial that can assist the user to learn how to perform the key-

strokes necessary to input patient data into the patient acuity (PA) portion of the program.

(2) To access the tutorial press the KBD key, hold it, press the backspace key, and release both keys. Using a Zenith PC, access the 8220 Plus and select "tutorial" from the menu. At the User ID prompt, type PERSTUTOR and press the enter key twice. Follow the instructions that will then appear on the screen.

b. Guidelines for data entry and WMSN reports are provided below.

(1) Follow instructions (para 2-3a) for completion of DD Form 2551 TEST or DD Form 2552 TEST. As an option, enter the acuity codes directly into the computer by selecting from the WMSN File Maintenance Submenu, number 2, Specify Acuity Procedures Performed or number 3, Scroll Acuity Procedures Performed.

(2) If the frequency of the task to be performed is correctly defined by the critical indicator, enter the number 1. If the critical indicator is performed more than one time or by more than one person, enter the number of times or the number of people. For example, if neuro checks, acuity code (AC) 13, are to be performed every hour instead of every 2 hours, enter the number 2 for AC 13. This changes the point value from 6 to 12. When two or more staff are required to perform a nursing activity, such as AC 63, assist out of bed, enter the number of staff required in the times performed column. By entering the frequency or the increased number of staff, the computer software will calculate the correct number of points for each critical indicator.

(3) Once the ACs, frequency of the task, and/or number of staff to perform the task are entered, the computer software will calculate the patient acuity category.

(4) At a time designated by the CN, a batch cycle will calculate the staffing requirements and generate daily WMSN reports. Classification of all patients must be completed and entered into the computer before the designated hour the batch cycle is programmed to run. If the data are not in the computer before the designated hour, the data will not be captured accurately for that day.

(5) Once the batch cycle begins, the computer cannot be used to enter additional patient data until the completion of the cycle. Cycle times will vary depending upon the number of patients in the system, the size of the facility, and the number of other users. Once the cycle has finished processing, the system is automatically ready for entry of patient data.

(6) Daily, the system records a "snapshot" of the facility's projected inpatient workload, required staffing, and available staffing. It also generates management reports and stores specified summary information for the monthly report.

(7) UCAPERS Monthly WMSN data are trans-

ferred to a diskette, using the WMSN Download Program. Follow the instructions provided by HCSSA. UCAPERS WMSN data can be transferred to the diskette as soon as the MEPRS personnel notify the CDON that UCAPERS schedules for the last week of the month have passed schedule reconciliation and the Monthly WMSN Reports have been created. UCAPERS schedule reconciliation and the request for the creation of the Monthly WMSN Reports are a MEPRS personnel function. Copies of the Monthly WMSN Reports should be provided to the DON as soon as Monthly WMSN Reports print successfully. When these reports have successfully been created by MEPRS personnel after schedule reconciliation, the Monthly WMSN file has been created, permitting the WMSN Download process. The monthly diskette may be created as soon as MEPRS personnel complete schedule reconciliation for the last week of the month and WMSN reports have been created. It is not necessary to wait until MEPRS personnel run the Expense Distribution for the month to create the diskette. Creating the diskette after the Expense Distribution results in an unnecessary delay in sending the data to the MACOM and OTSG and increases the risk of inaccurate data as a result of problems that may occur when running the Expense Distribution cycle. The timeframe for summarizing schedule data may vary among facilities. Coordinate with MEPRS and/or UCAPERS personnel to determine when schedules are reconciled at each MTF.

2-7. Specific Reporting Requirements

a. Monthly, each MTF forwards summary data by diskette to the command headquarters listed below. The diskettes are due at the command 1 month after the last day of the reporting month. For example, diskettes containing June data are due 1 August. Data on the Monthly WMSN Acuity Report for each unit or the WMSN Summary Report by Facility are to be maintained for 3 years. These reports may be kept on file in hardcopy or stored on diskettes.

- (1) Commander
USA Health Services Command
ATTN: HSRM-DR (Nurse Methods Analyst)
Fort Sam Houston, TX 78234-6000
- (2) Commander
Headquarters, 7th Medical Command
ATTN: Nursing Methods Consultant
APO New York 09102-3304

(3) Eighteenth Medical Command diskettes are delivered to a locale designated by the CDON.

b. MACOM diskettes are due at the OTSG address below 45 days after the last day of the reporting period. For example, the diskette containing June data will be due 14 August.

HQDA (DASG-HCM)
ATTN: WMSN Program Manager

5109 Leesburg Pike
Falls Church, VA 22041-3258

c. It is the responsibility of each facility to establish a local policy for the maintenance of reports required for a JCAHO survey.

2-8. On Demand Report Capability

a. The UCAPERS PA module provides the capability for individual nursing units to review and/or print the Nursing Unit Daily WMSN Report at anytime, except when the facility batch cycle is running. Printing can be done on the Datapoint or Zenith Alps printer. With this capability, unit personnel have the *option* to enter changes in workload into the computer at anytime and to view or print a current Daily WMSN Report. New admissions may be entered and classified, discharges deleted, or critical indicators changed. The changes are immediately reflected on the Nursing Unit Daily WMSN Report after a unit batch is run and may be viewed or printed at anytime for management decisionmaking. It is important to note that changes entered after the facility UCAPERS PA batch cycle will not be reflected in the facility WMSN data for that day. All patients must be classified or prior classifications updated on the next day prior to the facility batch cycle.

b. The facility daily batch cycle is not affected by the on demand capability. The data captured in this cycle is the "snapshot" of acuity data that is stored daily and used for the calculation of monthly data.

c. On demand reports also may be used to—

(1) Verify the accuracy of the data before the daily batch cycle runs.

(2) Reprint the Nursing Unit Daily WMSN Report at anytime.

(3) Update unit staffing and/or patient status and print a current report for management decision-making.

2-9. UCAPERS PA Reports

a. A variety of daily and monthly reports are generated by UCAPERS PA module. These reports provide a plethora of information for use by all levels of nursing management. WMSN reports are generated daily when a batch cycle is executed.

b. Daily reports.

(1) The Nursing Unit Daily WMSN Report (RCS MED-400) (fig 2-4) shows the status of the nursing unit census and the number of patients in each of the categories. This report also takes schedule data from the UCAPERS schedules currently in the system and compares the scheduled staff to the WMSN recommended staff. The data for the actual staff are only useful if schedules are kept up-to-date. The monthly reports use the summarized and corrected schedules for computation of the actual staff. NCHs required by the number and type of patients on the unit are also displayed. Following is an explanation

of the entries on the Nursing Unit Daily WMSN Report.

(a) PREPARED date and time—Date (YYMMDD) and time (military time) the report is actually created.

(b) APC/NURSING UNIT—Account Processing Code (APC)—A four-character alphanumeric field identifying a specific workcenter (W/C). The NURSING UNIT is a 6-character alpha-numeric field further defining the W/C.

(c) NURSING UNIT CLASSIFICATION—A three-character field defining the type of nursing W/C using approved codes only (M/S, PED, PSY, OB, NIC, CC, NBN, etc.).

(d) INTERRATER RELIABILITY ?%
DATE OF LAST RATING YYMMDD—Percentage of reliability and the date the rating was accomplished, based on the last information entered by the MEPRS office personnel on the APC Nursing Unit Table.

(e) W/C STATUS—

1 BEDS AVAILABLE—Locally set number of beds available on a unit and entered on the APC Nursing Unit Table, Total Beds.

2 TOTAL IN—Daily admissions and transfers in.

3 TOTAL OUT—Daily discharges and transfers out.

4 CURRENT CENSUS—Patients present in the system with the required demographic data at the time the cycle is run.

5 OCCUPANCY RATE—Daily percentage of occupied beds. Current number of patients divided by beds available times 100.

6 AVERAGE ACUITY—GEOM weighted average indicating average acuity for all categories for the day. Number of category I patients + (number of category II patients × 2) + (number of category III patients × 3) + (number of category IV patients × 4) + (number of category V patients × 5) + (number of category VI patients × 6) divided by the average daily patients. This average is observed for gross changes which might reflect a change in actual acuity level or changes in the categorization technique. Useful for trend analysis and management purposes.

(f) PATIENTS BY CATEGORY—Actual number of patients by category.

1 CATEGORY 0—The number of patients who have not been categorized and have no critical indicators or points. A patient may be in CATEGORY 0 if: Critical indicators are removed to indicate pass status, only the patient's demographic information is entered, or the patient has not been classified. No NCHs are reflected for patients in CATEGORY 0.

2 CATEGORY I—The number of patients with a sum of critical indicator values between 0 and 12 points.

PREPARED 90 JAN 04 16:19

UCA - PERSONNEL UTILIZATION SYSTEM
NURSING UNIT DAILY WMSN REPORT
J. D. EISENHOWER AMC

PCN DXXXX-NAC-6P03

FM 8-501

APC/NURSING UNIT TGWC/ 6W

NBN 6W NEWBORN NURSERY

INTER-RATER RELIABILITY 100% DATE OF LAST RATINGS 89 OCT 12

----- W/C STATUS -----

BEDS AVAILABLE 10
TOTAL IN 1
TOTAL OUT 1
CURRENT CENSUS 5
OCCUPANCY RATE 50%
AVERAGE ACTIVITY 2.80

----- PATIENTS BY CATEGORY -----

	I	II	III	IV	V	VI	TOTAL
NUMBER OF PATIENTS	0	1	4	0	0	0	5
PERCENT OF CENSUS	0%	20%	80%	0%	0%	0%	100%

CATEGORY 0 = NO CRITICAL INDICATORS ENTERED FOR PATIENT

NURSING CARE HOURS REQ .00 4.48 39.12 .00 .00 .00 43.60

----- REQUIRED VS. SCHEDULED FTE STAFFING COMPARISONS FOR 8-HOUR SHIFTS -----

SHIFT	RN			LPN			NA			TOTAL		
	REQD	SCHED	DIFF	REQD	SCHED	DIFF	REQD	SCHED	DIFF	REQD	SCHED	DIFF
1	2	3.0	1.0	2	1.0	- 1.0	0	0.0	0.0	4	4.0	0.0
2	1	1.0	0.0	1	1.0	0.0	0	0.0	0.0	2	2.0	0.0
3	1	2.0	1.0	1	0.0	- 1.0	0	1.0	1.0	2	3.0	1.0
4-9	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TOTAL	4	6.0	2.0	4	2.0	- 2.0	0	1.0	1.0	3	9.0	1.0

----- REQUIRED VS. SCHEDULED STAFFING COMPARISONS FOR 12-HOUR SHIFTS -----

SAMPLE

SHIFT	RN			LPN			NA			TOTAL		
	REQD	SCHED	DIFF	REQD	SCHED	DIFF	REQD	SCHED	DIFF	REQD	SCHED	DIFF
1	2	2.0	0.0	2	0.6	- 1.4	0	0.0	0.0	4	2.6	- 1.4
2	1	0.6	- 0.4	1	0.6	- 0.4	0	0.0	0.0	2	1.2	- 0.8
3-9	0	1.3	1.3	0	0.0	0.0	0	0.6	0.6	0	1.9	1.9
TOTAL	3	3.9	0.9	3	1.2	- 1.8	0	0.6	0.6	6	5.7	- 0.3

NOTE: INCLUDES A HEAD NURSE & WARDMASTER ON DAY SHIFT, MON. - FRI. FOR 8 HOURS
* MINIMUM STAFFING LEVEL USED

APC/NURSING UNIT TGWC/ 6W NBN 6W NEWBORN NURSERY

Figure 2-4. Sample Nursing Unit Daily WMSN Report (RCS MED-400).

3 CATEGORY II—The number of patients with a sum of critical indicator values between 13 and 31 points.

4 CATEGORY III—The number of patients with a sum of critical indicator values between 32 and 63 points.

5 CATEGORY IV—The number of patients with a sum of critical indicator values between 64 and 95 points.

6 CATEGORY V—The number of patients with a sum of critical indicator values between 96 and 145 points.

7 CATEGORY VI—The number of patients with a sum of critical indicator values between 146 and 262 points.

8 PERCENT OF CENSUS—Number of patients in each category divided by the total census times 100.

9 NCHs REQ—The number of WMSN recommended NCHs required for a 24-hour period based on the most recent categorization.

(g) REQUIRED VS. SCHEDULED FTE STAFFING COMPARISONS FOR 8- AND 12-HOUR SHIFTS.

1 SHIFT—If the staff works 8-hour shifts, disregard the 12-hour shift data. If the staff works 12-hour shifts, disregard the 8-hour shift data. UCAPERS offers the option of utilizing 1-9 to designate shifts. Shifts 1, 2, and 3 are shown separately. Shifts by any other number (4-9 for 8-hour shifts and 3-9 for 12-hour shifts) will be grouped together.

2 REQD—The required staffing is calculated using the patient acuity data and the distribution formulas. The HN and WM are included automatically in the distribution for day shift Monday through Friday, excluding holidays. This statistic is broken down by shift, skill level, and summed to a total.

3 SCHED—The scheduled number of staff reflected in FTEs is based on the available hours shown on the UCAPERS schedule in the system when the cycle is run. Hours on the schedule are displayed as FTEs per shift on the report. This statistic is broken down by shift, skill level, and summed to a total.

4 DIFF—The difference between the REQD (WMSN required) and SCHED staff (scheduled staff). This statistic is broken down by shift, skill level, and summed to a total.

(2) The Section Daily WMSN Report (RCS MED-400) (fig 2-5) provides aggregate staffing and workload data for each section. Following is an explanation of the entries on the Section Daily WMSN Report.

(a) PREPARED date and time—Date (YYMMDD) and time (military) the report is actually created.

(b) SECTION—The assigned name of the

facility's sections. The units in each section are designated on the APC NURSING UNIT TABLE in field 7, SECTION.

(c) APC/NURSING UNIT—APC: A four-character alpha-numeric field identifying a specific W/C. The NURSING UNIT is a 6-character alpha-numeric field further defining the W/C.

(d) NURSING UNIT CLASSIFICATION—A three-character field defining the type of nursing W/C using approved codes only (M/S, PED, PSY, OB, NIC, CC, NBN, etc.).

(e) INTERRATER RELIABILITY ?%
DATE OF LAST RATING YYMMDD—Percentage of reliability and the date the rating was accomplished, based on the last information entered by the MEPRS office personnel on the APC Nursing Unit Table.

(f) Required versus scheduled FTE staffing comparisons for 8- and 12-hour shifts.

1 SHIFT—If the staff works 8-hour shifts, disregard the 12-hour shift data. If the staff works 12-hour shifts, disregard the 8-hour shift data. UCAPERS offers the option of utilizing 1-9 to designate shifts. Shifts 1, 2, and 3 are shown separately. Shifts by any other number (4-9 for 8-hour shifts and 3-9 for 12-hour shifts) will be grouped together.

2 REQD—The required staffing is calculated using the patient acuity data and the distribution formulas. The HN and WM are included automatically in the distribution for day shift Monday through Friday, excluding holidays. This statistic is broken down by shift, skill level, and summed to a total.

3 SCHED—The scheduled number of staff reflected in FTEs based on the available hours shown on the UCAPERS schedule in the system when the cycle is run. Hours on the schedule are displayed as FTEs per shift on the report. This statistic is broken down by shift, skill level, and summed to a total.

4 DIFF—The difference between the REQD (WMSN required) and SCHED staff (scheduled staff). This statistic is broken down by shift, skill level, and summed to a total.

(g)— W/C STATUS—

1 BEDS AVAILABLE—Locally set number of beds available on a unit and entered on the APC/Nursing Unit Table, Total Beds.

2 TOTAL IN—Daily admissions and transfers.

3 TOTAL OUT—Daily discharges and transfers out.

4 CURRENT CENSUS—Patients present in the system with the required demographic data at the time the cycle is run.

5 OCCUPANCY RATE—Daily percentage of occupied beds. Current number of patients divided by beds available times 100.

6 AVERAGE ACUITY—GEOM weighted

PREPARED 90 JAN 04 16:26 UCA - PERSONNEL UTILIZATION SYSTEM PCN DXXX-VAC-SUPB
SECTION *** PSYCH *** SECTION DAILY WMSN REPORT
D. O. EISENHOWER AMC

APC/NURSING UNIT TGAE/ 11E M/S 11E MEDICAL WARD INTER-RATER RELIABILITY 100% DATE OF LAST RATING 89 OCT 10
3-HR STAFFING
SHIFT REQ SCHED DIFF RN SCHED DIFF LPN SCHED DIFF NA
1 3 3.0 0.0 2 1.0 1.0 1 1.0 0.0 2 2.0 0.0 2 0.6 - 1.4 1 0.6 - 0.4
2 1 2.0 1.0 0 1.0 1.0 1 0.0 - 1.0 2 1 1.3 0.3 0 0.6 0.5 1 0.3 - 1.0
3 1 2.0 1.0 0 0.0 0.0 1 0.0 - 1.0 3-9 0 1.3 1.3 0 0.0 0.0 0 0.0 - 0.0
4-9 0 0.0 0.0 0 0.0 0.0 0 0.0 0.0
TOTAL 5 7.0 2.0 2 2.0 0.0 3 1.0 - 2.0 TOTAL 3 4.6 1.6 2 1.2 - 0.8 2 0.6 - 1.4

NOTE: INCLUDES A HEAD NURSE & WARDMASTER ON DAY SHIFT, WCN. - FRI. FOR 8 HOURS

----- W/C STATUS -----

----- PATIENTS BY CATEGORY -----
BEDS AVAILABLE 38
TOTAL IN 0
TOTAL OUT 0
CURRENT CENSUS 18
OCCUPANCY RATE 47%
AVERAGE ACUITY 1.44
NURSING CARE HOURS REQ .00 16.95 29.06 10.57 .00 .00 .00 56.58

APC/NURSING UNIT THAE/ 13W PSY 13W PSYCHIATRY

3-HR STAFFING
SHIFT REQ SCHED DIFF RN SCHED DIFF LPN SCHED DIFF NA
1 4 2.0 - 2.0 2 3.0 1.0 3 2.0 - 1.0 1 3 1.3 - 1.7 2 2.0 0.0 3 1.3 - 1.7
2 2 1.0 - 1.0 1 3.0 2.0 2 1.0 - 1.0 2 2 0.6 - 1.4 1 2.0 1.0 1 0.6 - 0.4
3 1 1.0 0.0 1 1.0 0.0 1 1.0 0.0 3-9 0 0.6 0.5 0 0.6 0.6 0 0.6 - 0.6
4-9 0 0.0 0.0 0 0.0 0.0 0 0.0 0.0
TOTAL 7 4.0 - 3.0 4 7.0 3.0 6 4.0 - 2.0 TOTAL 5 2.5 - 2.5 3 4.6 1.6 4 2.5 - 1.5

NOTE: INCLUDES A HEAD NURSE & WARDMASTER ON DAY SHIFT, WCN. - FRI. FOR 8 HOURS

----- W/C STATUS -----

----- PATIENTS BY CATEGORY -----
BEDS AVAILABLE 33
TOTAL IN 2
TOTAL OUT 0
CURRENT CENSUS 17
OCCUPANCY RATE 52%
AVERAGE ACUITY 2.35

SAMPLE

----- PATIENTS BY CATEGORY -----
SHIFT REQ SCHED DIFF RN SCHED DIFF LPN SCHED DIFF NA
0 0 0 13 3 0 0 1 0 17
NUMBER OF PATIENTS
PERCENT OF CENSUS 0% 0% 77% 18% 0% 6% 0% 100%
NURSING CARE HOURS REQ .00 .00 60.38 30.40 .00 25.55 .00 116.33

PAGE 1

Figure 2-5. Sample Section Daily WMSN Report (RCS MED-400).

PCN DXXXX-VAC-6UP3

UCA - PERSONNEL UTILIZATION SYSTEM
SECTION DAILY MASN REPORT
D. D. EISENHOWER AMC

PREPARED 90 JAN 04 16:26

SECTION *** PSYCH ***

APC/NURSING UNIT				THAM/ 13E				PSY 13E PSYCHIATRY				INTER-RATER RELIABILITY				100% DATE OF LAST RATING 89 OCT 12			
				8-HR STAFFING				12-4R STAFFING											
				RN				LPN				RN				LPN			
SHIFT	REQ	SCHED	DIFF	REQ	SCHED	DIFF	REQ	SCHED	DIFF	REQ	SCHED	DIFF	REQ	SCHED	DIFF	REQ	SCHED	DIFF	
1	3	2.0	- 1.0	2	5.0	3.0	3	2.0	- 1.0	1	3	1.3	- 1.7	2	3.3	1.3	3	1.3	- 1.7
2	2	1.0	- 1.0	1	1.0	0.0	2	2.0	0.0	2	2	0.6	- 1.4	1	0.6	- 0.4	1	1.3	0.3
3	1	1.0	0.0	1	1.0	0.0	1	1.0	0.0	3-9	3	0.6	0.6	0	0.6	0.6	0	0.6	0.6
4-9	3	3.0	0.0	0	0.0	0.0	0	0.0	0.0										
TOTAL	9	4.0	- 2.0	4	7.0	3.0	6	5.0	- 1.0	TOTAL	5	2.5	- 2.5	3	4.5	1.5	4	3.2	- 0.8

NOTE: INCLUDES 4 HEAD NURSE & WARDMASTER ON DAY SHIFT, MON. - FRI. FOR 3 HOURS

----- W/C STATUS

PATIENTS BY CATEGORY

	I	II	III	IV	V	VI	TOTAL
BEDS AVAILABLE	0						
TOTAL IN	0	8	3	1	1	0	13
TOTAL OUT							
CURRENT CENSUS	0%	62%	23%	8%	8%	0%	100%
OCCUPANCY RATE							
AVERAGE ACUITY	.00	37.16	30.40	16.89	25.55	.00	113.00
NRSING CARE HOURS REQ							

END PAGE 2

SAMPLE

Figure 2-5. Sample Section Daily WMSN Report (RCS MED-400)—Continued

average indicating average acuity for all categories for the day. Number of category I patients + (number of category II patients \times 2) + (number of category III patients \times 3) + (number of category IV patients \times 4) + (number of category V patients \times 5) + (number of category VI patients \times 6) divided by the total number of patients. This average is observed for gross changes that might reflect a change in actual acuity or changes in the categorization technique. Useful for turned analysis and management purposes.

(h) PATIENTS BY CATEGORY—Actual number of patients by category.

1 CATEGORY 0—The number of patients who have not been categorized and have no critical indicators or points. A patient may be in CATEGORY 0 if: Critical indicators are removed to indicate pass status, only the patient's demographic information is entered, or the patient has not been classified. No NCHs are reflected for patients in CATEGORY 0.

2 CATEGORY I—The number of patients with a sum of critical indicator values between 0 and 12 points.

3 CATEGORY II—The number of patients with a sum of critical indicator values between 13 and 31 points.

4 CATEGORY III—The number of patients with a sum of critical indicator values between 32 and 63 points.

5 CATEGORY IV—The number of patients with a sum of critical indicator values between 64 and 95 points.

6 CATEGORY V—The number of patients with a sum of critical indicator values between 96 and 145 points.

7 CATEGORY VI—The number of patients with a sum of critical indicator values between 146 and 256 points.

8 PERCENT OF CENSUS—Number of patients in each category divided by total census times 100.

9 NURSING CARE HOURS REQD—The number of NCHs REQD for a 24-hour period based on the most recent categorization.

(3) The Patient Acuity File Listing (RCS MED-400) (fig 2-6) lists all the patients currently assigned to each nursing unit. Demographic information for each patient includes the registrar number, age, patient type, acuity category, doctor, diagnosis, and the date and time the patient was last classified. IRR percentage agreement is also included on the top of the report.

(4) The SI/VSI/CI/SC Report (RCS MED-400) (fig 2-7) lists all patients reported by each nursing unit as seriously ill (SI), very seriously ill (VSI), of command interest (CI), and/or of a special category (SC). This report includes the doctor's name and

medical diagnosis and may be used to brief commanders during the morning report.

(5) The Ward Activity Report (RCS MED-400) (fig 2-8) identifies by name each patient admitted, transferred in or out, or discharged from a particular nursing unit. The patient's name, registrar number, age, acuity category, doctor, diagnosis, and comments are displayed on this report.

c. Monthly reports give summaries of the WMSN data recorded daily in the computer. These reports identify the average number of patients by category and acuity, summarize the census statistics, compare the required and actual staffing, and provide information required by the MACOM and OTSG. Monthly reports summarize the data for the entire calendar month and are printed after schedule data for the last week of the month have been summarized and corrected.

(1) The Monthly WMSN Report (RCS MED-400) (fig 2-9) provides statistics for each workcenter (W/C). The information provided includes average daily number of patients in each acuity category, average daily census, average daily NCHs, average daily full time equivalents (FTEs) by skill level, WMSN required staff (the number of staff required to provide the average daily required NCHs), TDA required, TDA authorized, and TDA assigned. An average acuity number derived from a geometric (GEOM) average acuity formula (a weighted formula) is displayed to provide a single number for month-to-month comparison of the level of acuity of patients on a particular unit. Following is an explanation of the entries on the Monthly WMSN Report.

(a) PREPARED date and time—Date and time the report is created.

(b) MONTH ENDING—The month for which data is presented.

(c) OPERATIONAL ASSIGNED HOURS IN MONTH—The number of workdays in a month multiplied by 8 hours; that is, 20 days \times 8 hrs = 160, 21 days \times 8 hrs = 168.

(d) APC/NURSING UNIT—APC: A four-character alpha-numeric field identifying a specific W/C. The NURSING UNIT is a 6-character alpha-numeric field further defining the W/C.

(e) NURSING UNIT CLASSIFICATION—A three-character field defining the type of nursing W/C using approved codes only (M/S, PED, PSY, OB, NIC, CC, NBN, etc.).

(f) INTERRATER RELIABILITY ?% DATE OF LAST RATING YYMMDD—Percentage of reliability and the date the rating is accomplished, based on the last information entered by MEPRS office personnel on the APC Nursing Unit Table.

(g) W/C STATUS—Averages of daily information for the month indicated at top right of form (MONTH ENDING).

JCA - PERSONNEL UTILIZATION SYSTEM
 PATIENT ACUITY FILE LISTING
 D. D. EISENHOWER AMC

PREPARED 90 JAN 04 16:19

PCN DXXX-NAC-5P01

APC/NURSING UNIT TGTC/ 5W 08 POST PARTUM INTER-RATER RELIABILITY 100% DATE OF LAST RATING 89 OCT 12

PATIENT NAME	REGIST NUMBER	AGE	PAT TYPE	JCA CODE	ACTY CATG	LAST UPDATED	DOCTOR	DIAGNOSIS / COMMENTS
-----	-----	---	----	----	----	-----	-----	-----
	0518031	20	08	ACAA	III	04 JAN 90 11:39	MICHEL	PELVIC PAIN/DX. SCOPE
	0517845	17	08	ACAA	II	04 JAN 90 11:32	W.MCVAY	SICKLE/CELL CRISIS
	0517905	55	08	ACAA	III	04 JAN 90 11:32	K.KELLY	TAH/3SO
	0517856	32	08	ACBA	II	04 JAN 90 11:33	KELLY.K.	C/SECTION
	0517287	19	08	ACAA	II	04 JAN 90 11:34	DECKER	PELVIC PAIN
	0518024	21	08	ACBA	II	04 JAN 90 11:41	DECKER	IUP TERM/REP.C-SECTION
	0518013	20	08	ACBA	II	04 JAN 90 11:38	BROWN	LASER VAPORIZATION
	0517729	56	08	ACAA	III	04 JAN 90 11:35	KELLEY	EXPL. LAP
	0517953	28	08	ACBA	II	04 JAN 90 11:36	C BROWN	GASTROENTERITIS
	0518001	27	08	ACAA	II	04 JAN 90 11:42	BROWN	BTL
	0517992	25	08	ACBA	III	04 JAN 90 11:37	BOWLING	R/O LABOR
	0517886	24	08	ACBA	III	04 JAN 90 11:43	KELLY.K.	C/SECTION FTP
	0517997	13	08	ACBA	III	04 JAN 90 11:40	BOWLING	LABOR/P.P.
	0518012	30	08	ACAA	II	04 JAN 90 11:38	MICHEL	PELVIC PAIN/DX SCOPE

SAMPLE

APC/NURSING UNIT TGTC/ 5W 08 POST PARTUM

Figure 2-6. Sample Patient Acuity File Listing (RCS MED-400).

PREPARED 90 JAN 04 16:19 UCA - PERSONNEL UTILIZATION SYSTEM PCN DXXXX-NAC-6P02
SI/VSI/CI/SC REPORT
D. D. EISENHOWER AMC

APC/NURSING UNIT		TGTC/ 6W	OB POST PARTUM		INTER-RATER RELIABILITY		100%	DATE OF LAST RATINGS		89 OCT 12
PATIENT NAME		STAT	GRADE	IND	DOCTOR	DIAGNOSIS		COMMENTS		
-----		----	----	---	-----	-----	-----	-----		-----
DEP	MAJ	CI	KELLY.K.	C/SECTION						

SAMPLE

APC/NURSING UNIT TOTALS 0 SI 0 VSI 1 CI 0 SC
APC/NURSING UNIT TGTC/ 5W OB POST PARTUM

Figure 2-7. Sample SI/VSI/CI/SC Report (RCS MED-400).

PREPARED 90 JAN 04 16:19 JCA - PERSONNEL UTILIZATION SYSTEM
WARD ACTIVITY REPORT
D. D. EISENHOWER AMC

PCV DXXX-NAC-5PD4

APC/NURSING UNIT TGWC/ 6W NBN 6W NEWBORN NURSERY INTER-RATER RELIABILITY 100% DATE OF LAST RATING 89 OCT 12

PATIENT NAME	REGIST NUMBER	AGE	PAT TYPE	JCA CODE	ACTY CATG	LAST UPDATED	DOCTOR	DIAGNOSIS / COMMENTS
	0518020	NB	NBN	ADBA	III	04 JAN 90 14:32	SETTS	NEWBORN

ADMISSIONS

ADMISSIONS: 1

TRANSFERS IN

TRANSFERS IN: 0

TRANSFERS OUT

TRANSFERS OUT: 0

DISCHARGES

DISCHARGES: 1

APC/NURSING UNIT TGWC/ 6W NBN 6W NEWBORN NURSERY

Figure 2-8. Sample Ward Activity Report (RCS MED-400).

PREPARED 89 DEC 19 00:52 UCA - PERSONNEL UTILIZATION SYSTEM MONTHLY WMSN REPORT MONTH ENDING NOV 89 PCN DXXXX-VAC-6R01 D. D. EISENHOWER AMC OPERATIONAL ASSIGNED HOURS IN MONTH 160

APC/NURSING UNIT TGTC/ 5W 03 POST PARTUM INTER-RATER RELIABILITY 100% DATE OF LAST RATINGS 12 OCT 89

----- W/C STATUS -----		----- DAILY AVG PATIENTS BY CATEGORY -----							
BEDS AVAILABLE	25								
AVERAGE IN	5								
AVERAGE OUT	0								
AVERAGE CENSUS	13								
OCCUPANCY RATE	55%								
AVERAGE ACUITY	2.25								
		0	I	II	III	IV	V	VI	TOTAL
NUMBER OF PATIENTS		0.0	3.7	8.9	4.2	3.0	0.0	0.0	13.8
PERCENT OF CENSUS		0%	5%	54%	30%	3%	0%	0%	100%
NURSING CARE HOURS REQ		0.00	0.39	43.34	44.67	0.00	0.00	0.00	88.90

MONTHLY STAFFING SUMMARY				
TOT	ACTUAL FTE			
HRS	REG	OT/CE	3DR	TOT
RN	997	5.14	3.09	1.03
LPN	606	2.84	3.05	3.93
NA	746	3.64	3.05	3.95
TOTAL	2349	11.62	0.20	2.85
				14.68

COMPARISON OF WMSN VS TDA				
WMSN	TDA	TDA	TDA	TDA
REQD	REQD	DIFF	AUTH	ASSGN
7	9	+3.03	8	7
7	7	+3.03	5	5
5	7	+2.03	5	4
21	23	+2.03	18	16

SAMPLE

APC/NURSING UNIT TGTC/ 5W 03 POST PARTUM

OCCUPANCY RATE = TOTAL AVG PATIENT BY CATEGORY / BEDS AVAILABLE
 TOT HRS AVAIL = MONTHLY AVAIL IN RECONCILED WKLY (FINAL) UCAPERS SCHDS
 TOTAL FTE = TOTAL HRS AVAIL / OPERATIONAL ASSIGNED HOURS
 TDA DIFF = TDA REQD - WMSN REQD

Figure 2-9. Sample Monthly WMSN Report (RCS MED-400).

1 BEDS AVAILABLE—Locally set number of beds available on a unit as entered on the APC/Nursing Unit Table.

2 AVERAGE IN—Average daily number of admissions or transfers to a unit.

3 AVERAGE OUT—Average daily number of discharges or transfers from a unit.

4 AVERAGE CENSUS—Average whole number of patients on the unit per day for the month indicated.

5 OCCUPANCY RATE—Average daily percentage of occupancy of the beds available. Total average number of patients divided by beds available.

(h) DAILY AVG PATIENTS BY CATEGORY.

1 NUMBER OF PATIENTS—Total number of patients by category divided by cycles per month.

2 PERCENT OF CENSUS—Number of patients per category divided by total number of patients.

3 NURSING CARE HOURS REQD—AVG daily NCHs needed to provide care for the AVG daily number of patients.

(i) MONTHLY STAFFING SUMMARY.

1 ACTUAL FTE—The number of FTEs.

2 REG—The total number of scheduled hours documented on the UCAPERS schedules, divided by the operational assigned hours. Reported by skill level and summed to a total.

3 OT/CT—Overtime (civilian) or compensatory time (civilian or military) is the number of hours over 8 hours a day or 40 hours a week documented on the UCAPERS schedules divided by the operational assigned hours. Reported by skill level and summed to a total.

4 BORR—The number of hours worked by an individual borrowed from another unit, divided by operational assigned hours. Reported by skill level and summed to a total.

5 TOT—The number of TOT HRS AVAIL divided by the operational assigned hours.

(j) COMPARISON OF WMSN VS TDA.

1 WMSN required = NCHs times 30.44 divided by 145, + 2 (HN + WM) for CONUS or + 3 (HN + WM + readiness REQD) for OCONUS. This number represents the total number of staff required for the month based on the daily average number of patients and NCHs required.

2 TDA REQD—The number of requirements documented on the TDA. Data is retrieved from the TDA by the paragraph associated with the W/C code (APC). The APC/UCA/AMS table listing W/Cs by APC code has a TDA paragraph associated with each APC. When the TDA data for the monthly reports is retrieved, the system is programmed to verify the TDA paragraph on this table. An incorrect

TDA paragraph shown for an APC, will result in erroneous data on WMSN reports.

3 TDA DIFF—TDA required minus the WMSN required.

4 TDA AUTH—The number of authorizations on the TDA.

5 TDA ASSGN—The number of assigned personnel on the TDA.

(2) The Section Monthly WMSN Report (RCS MED-400) (fig 2-10) provides workload, acuity, and manpower statistics for a month by section. Following is an explanation of the entries required by the WMSN Summary Report by Facility.

(a) PREPARED date and time—Date (YYMMDD) and time (military) the report is actually created.

(b) MONTH ENDING—The month for which data is presented.

(c) OPERATIONAL ASSIGNED HOURS IN MONTH—The number of workdays in a month multiplied by 8 hours; that is, 20 days \times 8 hrs = 160, 21 days \times 8 hours = 168.

(d) SECTION—The assigned name of the facility's sections. The units in each section are designated on the APC/NURSING UNIT table in field 7, SECTION.

(e) APC/NURSING UNIT—APC: A four-character alpha-numeric field identifying a specific W/C. The NURSING UNIT is a 6-character alpha-numeric field further defining the W/C.

(f) NURSING UNIT CLASSIFICATION—A three-character field defining the type of nursing W/C using approved codes only (M/S, PED, PSY, OB, NIC, CC, NBN, etc.).

(g) INTERRATER RELIABILITY ?% DATE OF LAST RATING YYMMDD—Percentage of reliability and the date the rating was accomplished, based on the last information entered by the MEPRS office personnel on the APC Nursing Unit Table.

(h) MONTHLY STAFFING SUMMARY.

1 TOT HRS AVIL—Total available hours for the month as reported on reconciled weekly UCAPERS schedules, reported by skill level, and summed to a total.

2 ACTUAL FTE—The number of FTEs.

3 REG—The total number of scheduled hours documented on the UCAPERS schedules, divided by the operational assigned hours. Reported by skill level and summed to a total.

4 OT/CT—Overtime (civilian) or compensatory time (civilian or military) is the number of hours over 8 hours a day or 40 hours a week documented on the UCAPERS schedules divided by the operational assigned hours. Reported by skill level and summed to a total.

5 BORR—The number of hours worked by an individual borrowed from another unit, divided by

UCA - PERSONNEL UTILIZATION SYSTEM
 SECTION MONTHLY WMSN REPORT
 DARNALL ARMY COM HOSPITAL

PREPARED 89 FEB 02 14:24

MONTH ENDING JAN 39 PCN DXXXX-NAC-6VP?
OPERATIONAL ASSIGNED HOURS IN MONTH 153

MONTHLY STAFFING COMPARISONS

REG	OT/CE	BORP	TOTAL	WMSN TDA REGD REQD	TDA DIFF	TDA AUTH	TDA ASGN	DAILY AVG PATIENTS BY CATEGORY						TOTAL
								I	II	III	IV	V	VI	
TOT														
HRS														
AVAIL														

SECTION	MA/CH	APC/NURSING	UNIT	EDDO/ PED	4E PEDIATRICS				INTER-RATE RELIABILITY				DATE OF LAST RATING				02 SEP 39	
	1149	6.92	0.17	0.10	13	7	-6.00	7	7	NP	=	0.0	C.4	2.1	7.1	1.4	0.1	
	315	1.76	0.05	1.97	6	4	-2.00	3	2	PC	=	0%	4%	1.92	6.4%	13%	1%	
	1142	6.86	0.03	7.14	6	8	+2.00	7	9	NCH	=	0.0	C.4	9.9	73.4	24.1	2.5	
TOTAL	2606	15.54	0.26	0.50	25	19	-6.00	17	18									

SECTION	MA/CH	APC/NURSING	UNIT	FDHO/ OP	2E OBSTETRICS				INTER-RATER RELIABILITY				DATE OF LAST RATING				
	2170	3.99	3.13	1.45	13.57	12	15	+3.00	14	14	NP = 0.0	11.0	15.1	2.8	0.1	0.0	0.0
	1030	6.10	0.34	0.00	6.44	10	8	-2.00	7	6	PC = 0%	37%	54%	9%	0%	0%	30-2
	1809	11.04	0.13	0.09	11.31	7	13	+11.00	10	10	NCH = 0.0	17.1	73.6	29.7	1.7	0.0	100%
																	127.3
TOTAL	5009	26.13	3.65	1.54	31.32	29	41	+12.00	31	30							

SECTION	MA/CH	APC/NURSING	UNIT	FDPO/	NBN	NURSERY				INTER-RATER RELIABILITY				80% DATE OF LAST RATING				04 NOV 32	
	929	3-16	0-83	1-33	5-82	6	6	+0-00	4	6	NP =	0-0	3-8	5-1	1-9	0-0	0-0	10-3	
	365	1-68	0-47	0-14	2-29	4	3	-1-00	3	2	PC =	0%	35%	47%	18%	0%	0%	100%	
	1064	6-55	0-00	0-10	6-65	2	7	+5-00	7	7	NCH =	0-0	5-3	22-3	18-5	0-0	0-0	46-5	
TOTAL	2353	11-39	1-30	2-07	14-76	12#	16	+4-00	14	15									

SECTION	MA/CH	APC/NURSING	UNIT	FDRO/ NIC	NEONATAL	INTENSIVE	CARE	U	INTER-RATER	RELIABILITY	100% DATE OF	LAST RATING	26 OCT 83
1166	5-10	2-14	0-05	7-29	14	11	-3-00	11	8	NP = 0-0	0-3	0-1	0-3
909	4-28	1-41	0-00	5-69	3	6	+3-00	6	6	PC = 0-0	5%	12	100%
0	3-00	0-00	0-00	0-00	1	0	-1-00	0	0	NCH = 0-0	0-4	2-4	12-6
TOTAL	2075	9-38	3-55	0-05	12-98	18	17	-1-00	17	14			

MINIMUM STAFFING LEVEL USED

SAMPLE

TOT HRS AVAIL = MONTHLY AVAIL IN RECONCILED WKLY (FINAL) UCAPERS SCHEDS
 TOTAL FTE = TOTAL HRS AVAIL / OPERATIONAL ASSIGNED HOURS
 TDA DIFF = TDA REQD - WMSN REQD
 NP = NUMBER OF PATIENTS
 PC = PERCENT OF CENSUS
 NCH = NURSING CARE HOURS REQ

PAGE 2

Figure 2-10. Section Monthly WMSN Report (RCS MED-400).

operational assigned hours. Reported by skill level and summed to a total.

6 TOTAL—The number of TOT HRS AVAIL divided by the operational assigned hours.

7 WMSN REQD = NCHs times 30.44 divided by 145, plus 2 (HN + WM) for CONUS or plus 3 (HN + WM + readiness REQD) for OCONUS. This number represents the total number of staff required for the *month* based on the daily AVG number of patients and NCHs required.

8 TDA REQD—The number of requirements documented on the TDA. Data is retrieved from the TDA by the paragraph associated with the W/C code (APC). The APC/UCA/AMS table listing W/Cs by APC code has a TDA paragraph associated with each APC. When the TDA data for the monthly reports is retrieved, the system is programmed to verify the TDA paragraph on this table. An incorrect TDA paragraph shown for an APC, will result in erroneous data on WMSN reports.

9 TDA DIFF—TDA requirements minus the WMSN required.

10 TDA AUTH—The number of authorizations on the TDA.

11 TDA ASSGN—The number of assigned personnel on the TDA.

(i) MINIMUM STAFFING LEVEL USED—

1 CONUS Minimum Staff: 12.

2 OCONUS Minimum Staff: 13.

(3) The WMSN Summary Report By Facility (RCS MED-400) (fig 2-11) shows the data in the format that is forwarded to the MACOM and OTSG. This report must be printed at the facility level, using the Append or Print utility. Because this report contains comprehensive workload and manpower, it is the most frequently used by the MACOM and OTSG staff. Following is an explanation of the entries on the WMSN Summary Report by Facility.

(a) FACILITY NAME—Name associated with the facility reporting the data.

(b) W/C NAME—Name associated with the ward, clinic, nursing unit or W/C reporting the data.

(c) W/C TYPE—One of the 7 types of W/C (M/S, ICU, PED, OB, NBN, PSY, NIC).

(d) AVERAGE NUMBER OF PATIENTS PER DAY.

1 CATEGORY I patients—Total number of patients categorized with point totals between 0 and 12, divided by the number of UCAPERS PA cycles in the reporting period.

2 CATEGORY II patients—Total number of patients categorized with point totals between 13 and 31 divided by the number of UCAPERS PA cycles in the reporting period.

3 CATEGORY III patients—Total number of patients categorized with point totals between 32 and 63, divided by the number of UCAPERS PA cycles in the reporting period.

4 CATEGORY IV patients—Total number of patients categorized with point totals between 64 and 95 divided by the number of UCAPERS PA cycles in the reporting period.

5 CATEGORY V patients—Total number of patients categorized with point totals between 96 and 145 divided by the number of UCAPERS PA cycles in the reporting period.

6 CATEGORY VI patients—Total number of patients categorized with point total above 146, divided by the number of UCAPERS PA cycles in the reporting period.

(e) AVG DAILY PTNTS—Sum of all patients divided by the number of UCAPERS PA cycles in the reporting period.

(f) AVG DAILY NCHs—NCHs needed to provide care for the average daily patients.

(g) RAW STAFF EARNED—Average daily NCHs multiplied by 30.44 divided by 145 plus the HN and WM.

(h) WMS REQUIRED PROF—Total number of AN officers and RNs required to provide the average daily required NCHs. (Raw staff earned plus any additive.)

(i) WMS REQUIRED PARA—Total number of 91D, 91C, 91B, 91A, 91F, LPN, NA, and clerks required to provide the average daily required NCHs.

(j) TOT—Total staff (PROFs and PARAs) required to provide the average daily required NCHs. (Raw staff earned plus any additive.)

(k) TDA REQUIRED—Total number of staff required by the functional TDA.

(l) REQ DELTA—Total WMS required minus the TDA required.

(m) TDA AUTHORIZED—Total number of staff authorized by the functional TDA.

(n) AUTH DELTA—Total WMS required minus the TDA authorized.

(o) TDA ASSIGNED—Total number of staff assigned by the functional TDA.

(p) ASSN DELTA—Total WMS required minus the TDA assigned.

(q) AVG ACUITY (GEOM)—Number of average daily category I patients + (number of average daily category II patients \times 2) + (number of average daily category III patients \times 3) + (number of average daily category IV patients \times 4) + (number of average daily category V patients \times 5) + (number of average daily category VI patients \times 6) divided by the average daily patients.

(4) The Manpower Staffing Standards Report (RCS MED-400) (fig 2-12) shows the total number of man-hours earned by a W/C based on the workload factor and the average monthly number of patients per acuity category for the current 12 months. The minimum staffing man-hours recognized by the MS-3 inpatient standards are 1740 for continental United

[illegible]

* Delta = WMS Required - TIA Actuals
 ** Raw Staff Earned = (Avg. Daily NCHs * 30.44 / 145) + 2 (IN & NW)
 *** WMS Required = Raw Staff Earned + (Additive if WACOM other than USC)

DATE: 02 Nov 89

44

Figure 2-11. Sample WMSN Summary Report By Facility (RCS MED-400).

PREPARED 90 JUN 23 16:35
 JCA - PERSONNEL UTILIZATION SYSTEM
 MANPOWER STAFFING STANDARDS FOR
 INPATIENT NURSING WARD REPORT
 USA MEDDAC, FT MEADE

MONTH ENDING JUN 90 PCN DXXXX-NAC-ORU-
 CAH-US IN MONTH 176

APC/NURSING UNIT FC53 / M/S 3B MIXED MED SURG

MONTH/YEAR	CAT 1	CAT 2	CAT 3	CAT 4	CAT 5	CAT 6	TOTAL
JUL 89	1.6 *	4.9	4.9	0.0	0.0	0.0	12.4
AUG 89	2.8	5.4	5.2	0.4	0.0	0.0	13.8
SEP 89	4.2	4.8	5.6	0.7 *	0.0	0.0	15.3
OCT 89	3.5	5.3	4.7	0.2	0.0	0.0	13.7
NOV 89	2.6	4.4	4.3	0.3	0.0	0.0	11.6
DEC 89	2.9	5.0	4.0	0.4	0.0	0.0	12.3
JAN 90	0.0 *	0.0 *	0.0 *	0.0	0.0	0.0	0.0 *
FEB 90	2.9	4.6	2.8 *	0.1	0.9	0.0	12.1
MAR 90	3.7	4.2	3.8	0.3	1.1	0.3	13.4
APR 90	3.6	6.5	4.9	0.1	0.0	0.7	15.3
MAY 90	3.1	4.5	5.5	0.2	1.2	0.9	15.7
JUN 90	3.4	6.6	5.6	0.1	0.0	0.0	15.7
MEAN	3.1152	5.1545	4.6336	0.3091	0.2989	0.2727	13.6371
STD DEV	0.6562	0.7341	0.8337	0.1929	0.4795	0.3670	1.5352
LCL	+1.8053	+3.6363	+2.9962	-0.0767	-0.6681	-0.4615	+10.6427
UCL	+4.4305	+6.6227	+6.3310	+0.6949	+1.2+99	+1.0067	+15.5653

* OUTLIER DATA
 OUTLIER DATA INCLUDED IN ALL COMPUTATIONS
 MONTHS WITH ZERO PATIENTS NOT INCLUDED IN COMPUTATIONS

	CAT 1	CAT 2	CAT 3	CAT 4	CAT 5	CAT 6
DAILY AVERAGES:	3.1152	5.1545	4.6336	0.3091	0.2989	0.2727
MONTHLY AVERAGES:	94.9180	156.9030	141.9600	9.4090	8.8550	8.3010

TOTAL EARNED
 MANHOURS

TOTAL MANHOURS
 COMPUTATIONS: 290.00 + 146.2486 + 759.3812 + 1500.3172 + 165.6925 + 235.8087 + 372.7779 = 3470.9661

TOTAL
 REQUIREMENTS

25

SAMPLE

END PAGE 1

Figure 2-12. Sample Manpower Staffing Standards Report (RCS MED-400).

PREPARED BY DEC 19 UIC: 430M
 UCA - PERSONNEL UTILIZATION SYSTEM
 MANPOWER STAFFING STANDARDS FOR MONTH ENDING 89 NOV 30 PCN DXXXX-VAC6Y2B
 INPATIENT NURSING SUMMARY REPORT
 D. D. EISENHOWER AMC

APC	WARD	TDA PARA	CURRENT REQUIREMENTS		CURRENT AJTH ACTUAL		STANDARD APPLICATION			FJR MACOM USE	ADJ TO			
			PROF PARA	TOTAL	AJTH	STR	TOTAL EARNED	MANPOWER	PROF PARA		TOTAL	CURR RQMTS	ADJ TO TOTAL	
TSAE	M/S 11E MEDICAL	468D	3	22	30	2	4	1796.3195	5	5	12	- 2	-16	+ 10
TSAH	M/S 9E MEDICAL	468B	11	18	29	25	25	4579.5945	12	19	31	+ 1	+ 1	+ 6
TSAK	M/S 9W MEDICAL	463C	10	20	30	31	23	4527.1473	12	19	31	+ 2	- 1	+ 0
TGAT	M/S 8E MEDICAL	466M	9	18	27	39	27	5350.0295	14	22	35	+ 5	+ 4	- 3
TGAW	CC 5W CORONARY	463C	13	19	37	42	25	4010.7760	16	11	27	- 2	- 8	- 15
TGJJ	CC 5E COR CARE	463B	16	12	28	10	12	1988.6058	8	5	13	- 3	- 7	+ 3
TGKA	M/S 10E SURGICA	472A	11	21	32	35	29	3757.2451	10	15	25	- 1	- 6	- 10
TGKC	M/S 10W SURGICA	472	11	21	32	26	28	4155.0001	11	17	28	+ 0	- 4	+ 2
TGKE	CC 3E SURGICAL	463F	13	16	29	30	21	4231.8645	17	12	29	+ 4	- 4	- 1
TGKP	M/S 11W SURGICA	471G	11	23	34	27	25	4376.8742	11	17	28	+ 0	- 6	+ 1
TGTC	OB POST PARTUM	465L	9	10	19	13	16	3504.0790	10	14	24	+ 1	+ 4	+ 6
TGWA	PED 5E PEDIATRI	465B	7	14	21	20	18	2531.2248	9	9	18	+ 2	- 5	- 2
TGWC	NBN 6W NEWBORN	465F	9	9	18	11	12	1755.0189	6	6	12	- 3	- 3	+ 1
THAE	PSY 13W PSYCHIA	470C	8	26	34	29	25	6441.5676	17	27	44	+ 9	+ 1	+ 15
THAH	PSY 13E PSYCHIA	470B	3	24	32	29	26	1378.0518	5	6	12	- 2	-13	- 17
TOTALS			159	273	432	374	316	54783.4186	165	205	373	+ 6	- 65	- 4

SAMPLE

54783.4186
 ----- = +373
 145

DISTRIBUTION OF OB ROUNDING REQUIREMENTS

WARD	NUMBER
-----	-----
-----	-----
-----	-----

Figure 2-13. Sample Inpatient Nursing Summary Report (RCS MED-400).

States (CONUS) and 1885 for outside continental United States (OCONUS). If the man-hours earned for a W/C are less than the minimum, the minimum will be reported. Following is an explanation of the entries required by the Inpatient Nursing Ward Report.

(a) PREPARED date and time—Date (YYMMDD) and time (military) the report is actually created.

(b) MONTH ENDING—The month for which data is presented.

(c) OPERATIONAL ASSIGNED HOURS IN MONTH—The number of workdays in a month multiplied by 8 hours; that is, $20 \text{ days} \times 8 \text{ hrs} = 160$, $21 \text{ days} \times 8 \text{ hrs} = 168$.

(d) APC/NURSING UNIT—APC: A four-character alpha-numeric field identifying a specific W/C. The NURSING UNIT is a 6-character alpha-numeric field further defining the W/C.

(e) NURSING UNIT CLASSIFICATION—A three-character field defining the type of nursing W/C using approved codes only (M/S, PED, PSY, OB, NIC, CC, NBN, etc.).

1 MONTH/YEAR—The most current 12 months of acuity data.

2 CATEGORY I-VI—The daily average number of patients in each of the WMSN acuity categories (CATEGORY I-VI) by designated month.

3 TOTAL—The sum of the daily average number of patients in categories I-VI for the designated month.

4 LIMITS TEST—A test that identifies those months that fall above or below two standard deviations from the mean.

5 MEAN—The sum of the TOTAL column divided by 12.

6 STD DEV—Standard deviation.

7 LCL—Lower control limits. Two STD DEVs below the mean.

8 UCL—Upper control limits. Two STD DEVs above the mean.

(f) OUTLIER DATA—Data that are 2 STD DEVs above or below the mean.

1 DAILY AVERAGES—The sum of the total daily AVG number of patients within an acuity category divided by the number of months within the control limits.

2 MONTHLY AVERAGES—The daily AVG number of patients within one of the six categories multiplied by 30.44 (the multiplier for units occupied 7 days a week, 24 hours a day).

(g) TOTAL MAN-HOURS COMPUTATIONS—The number of man-hours earned in each acuity category.

(h) TOTAL EARNED MAN-HOURS—Total man-hours earned based on annual workload.

(i) TOTAL REQUIREMENTS—Total staff

required, based on annual workload data, to staff a unit 24 hours a day, 7 days a week. Total earned man-hours divided by the AAF of 145 hours.

(5) The Inpatient Nursing Summary Report (RCS MED-400) (fig 2-13) furnishes manpower requirements determined by applications of the MS-3 equations. The total man-hours earned are calculated and then divided by the Army availability factor (AAF) of 145. The results represent the minimum number of manpower requirements for a nursing unit, based on workload. Current requirements, authorizations, and actual strength are listed for comparison with the standard's earned manpower requirements. This report facilitates monthly trend and variance analysis of requirements derived from the MS-3 formula yield. Following is an explanation of the entries on the Inpatient Nursing Summary Report.

(a) PREPARED date and time—Date (YYMMDD) and time (military) the report is actually created.

(b) MONTH ENDING—Month for which data is presented.

(c) UIC—Unit Identification Code.

(d) APC—APC: A four-character code designating a particular nursing unit for accounting purposes.

(e) WARD—The name of the W/C or nursing unit.

(f) TDA PARA—The paragraph number in the TDA assigned to a specific nursing unit as it appears on the APC table.

(g) CURRENT REQUIREMENTS—The requirements shown as approved staffing on the current manning document. This statistic is broken down by total number of professional (RN) and paraprofessional staff (LPN, NA, WC).

(h) CURRENT AUTH TOTAL—The total number of staff authorized on the current approved authorization document.

(i) CURRENT ACTUAL STR TOTAL—The total number of staff assigned to a specific unit on the last day of the month of the report.

(j) STANDARD APPLICATION—The statistics resulting from application of the MS-3 equations for each W/C.

1 TOTAL MAN-HOURS EARNED—Total computed man-hours earned.

2 TOTAL EARNED MANPOWER—Total number of staff required based on workload.

Note. Data fields 3 and 4 below are for MACOM use. FOR MACOM USE—

3 ADJ TO CURR RQMTS—Total earned manpower (professional and paraprofessional) minus current requirements.

4 ADJ CURR AUTH TOTAL—Total earned manpower minus current authorizations.

2-10. WMSN Append or Print Utility Program

The WMSN Append or Print capability allows the WMSN Summary Report By Facility (RCS MED-400) (fig 2-11) to be printed at the facility level. This report contains the data that is transferred monthly to the MACOM and OTSG. This capability allows CNs and nurse managers to review acuity and manpower data prior to transfer to the MACOM. The printed report contains the summarized data that is required to be kept by month for 3 years.

2-11. Archiving WMSN Data

a. WMSN monthly data may be archived onto a diskette. The WMSN Download Program creates a master and a backup diskette. The master diskette is sent to the MACOM. The backup diskette may be appended onto the hard drive, using the WMSN Append or Print Utility Program. Once appended, the data on the WMSN Summary Report by Facility are stored on hard drive. The appended data may be retrieved at anytime. Data may be retrieved by month, such as 12/89 to 12/89, or by multiple continuous months, such as 01/90 to 06/90. The data for multiple months are shown as accumulated averages for the selected timeframe. TDA data shown will be for the last month requested.

b. The backup diskettes created monthly by the WMSN Download Program may be used to store WMSN data. Three years of data are to be kept on file. The diskettes must be stored in a safe place.

c. Should the computer with the appended data stored on the hard drive become inoperative, the Append or Print Utility Program may be installed on

any Zenith 248 computer connected to the MEPRS network. Once installed, append the previous backup diskettes and print reports as needed.

2-12. How Long to Keep WMSN Information

a. WMSN information is to be kept for 3 years. Only the data used for computation of the MS-3 standards are required. These data are the average daily number of patients per acuity category by unit. This information is available on two reports:

(1) Monthly WMSN Report (RCS MED-400) (fig 2-9).

(2) WMSN Summary Report by Facility (RCS MED-400) (fig 2-11).

b. The data may be kept two ways.

(1) The monthly backup diskettes created by the WMSN Download Program may be copied onto the hard drive for storage. Store the backup diskettes in a safe place, to be used should there be a problem with the hard drive.

(2) Either of the reports listed in paragraph 2-12*a* may be kept on file. Additional WMSN reports may be required to be kept by the facility in order to retrieve staffing information for a JCAHO survey.

2-13. What to Do When the Automated System Goes Down

Classify patients into the appropriate acuity category daily, using the DD Form 2551 TEST or DD Form 2552 TEST. Keep a daily record of the total number of patients per acuity category by unit for each day the system is down. Submit these data to the RMO and MACOM NMA for the MS-3 application.

CHAPTER 3

GUIDELINES FOR USE OF THE CRITICAL INDICATORS

Section I. INTRODUCTION

3-1. General Information

a. Critical indicators are the nursing care activities that have the greatest impact on time spent in direct patient care.

b. The critical indicators are listed in the order in which they appear on DD Form 2551 TEST and DD

Form 2552 TEST (figs 2-1 and 2-2). Each critical indicator has an AC number and a point value. Refer to the summary list of the general and psychiatric critical indicators (tables 3-1 and 3-2) for quick reference. Each point is equal to 7.5 min of direct nursing care time.

Table 3-1. General critical indicators.

AC		Frequency	Point value
	VS		
1	VS	q.i.d. or less	1
2	VS	q.4 hours or x6	2
3	VS	q.3 hours or x8	3
4	VS	q.2 hours or x12	4
5	VS	q.1 hour or x24	8
6	Rectal or axillary temp or apical pulse	q.i.d. or more	2
7	Femoral or pedal pulses or FHT	q.i.d. or more	2
8	Tilt tests	q.4 hours or more	2
9	Post-operation, post-partum, post delivery (infants)		6
	Monitoring		
10	Intake and output	q.8 hours	2
11	Intake and output	q.2 hours	8
12	Circulation or fundus checks	q.2 hours or x12	2
13	Neuro checks	q.4 hours or x6	3
14	Neuro checks	q.2 hours or x12	6
15	CVP or ICP (manual)	q.2 hours or x12	2
16	Cardiac, apnea, or pressure monitors	(not cumulative)	6
17	Transcutaneous monitor or oximeter	q.4 hours or x6	6
18	A-line or ICP (monitor) or Swan Ganz setup		4
19	A-line or ICP (monitor) reading	q.2 hours or x12	2
20	Swan Ganz PAP or pulmonary artery wedge pressure readings	q.4 hours or x6	2
21	Swan Ganz PAP or pulmonary artery wedge pressure readings	q.2 hours or x12	4
22	Cardiac output	t.i.d or x3	2
	ADL		
23	Care—age 5 or less—infant or toddler		6
24	Care—age 6 or more—self		2
25	Care—age 6 or more—assisted		6
26	Care—age 6 or more—complete		14
27	Care—age 6 or more—total	skin care q.2 hours	32
28	Extra linen change and partial bath	x2 per 8-hour shift	4
29	Turning frame—2 staff members	q.2 hours	14
30	Pediatric recreation and/or observation—age 0 to 12		8
	Feeding		
31	Spoon feed meals—age 6 or more	x3	6
32	Spoon feed meals—age 5 or less	x3	10
33	Infant or neonate bottle	x1 feeding	2
34	Infant or neonate bottle	q.4 hours or x6	12
35	Infant or neonate bottle	q.3 hours or x8	16
36	Tube feed—bolus	q.4 hours or x6	5
37	Tube feed—bolus	q.3 hours or x8	8
38	Tube feed—bolus	q.2 hours or x12	10
39	Tube feed—continuous	per bottle change	2
	IV therapy		
40	Start IV	each	2
41	Change bottle or bag	b.i.d. or less	4
42	Change bottle or bag	t.i.d. or q.i.d.	6

Table 3-1. General critical indicators—Continued

AC	Frequency	Point value
43 Change bottle or bag	x5 or more	8
44 Heparin lock or Broviac	q.4 or x6	4
45 IV medication	q.8 hours or x3	2
46 IV medication	q.6 hours or x4	3
47 IV medication	q.4 hours or x6	4
48 Blood products	per unit	2
49 Infusion controller or pump	each	2
Treatments, procedures, and/or medications		
50 Insert NG		2
51 Preoperation preparation, enema, Ace wrap, or support hose		2
52 Catheterization—Foley or straight	x2	2
53 Tube care—		2
54 Dressing—simple	15 min	2
55 Dressing—complex	30 min	4
56 Laboratory tests performed or collected on the unit	x3	2
57 ECG		2
58 Venipuncture, arterial puncture	x2	2
59 Medications—exclude IV	3 to 11 trips	2
60 Medications—exclude IV	12 or more trips	4
61 Irrigations or instillations	x4 or less	2
62 Restraints, 2-point, 4-point, Posey		2
63 Assist 00B	chair or Gurney x3	2
64 Assist 00B	ambulate x1	2
65 Infant circumcision or phototherapy		2
66 Isolation	gown and gloves x8	2
67 Chest tube insertion or lumbar puncture		4
68 Thoracentesis or paracentesis		4
69 Range of motion exercises	x3	4
70 New admission—assessment and orientation		12
71 Transfer—in-house		4
72 Accompany patient off unit	15 min	2
73 Accompany patient off unit	30 min	4
74 Accompany patient off unit	45 min	6
75 Other activities	15 min	2
76 Other activities	30 min	4
77 Other activities	45 min	6
78 Each hour requiring continuous staff attendance		8
Respiratory therapy		
79 Oxygen therapy or oxyhood		2
80 Incentive spirometer or C and DB	q.4 hours or x6	2
81 IPPB or maximist	b.i.d. or x2	2
82 IPPB or maximist	q.6 hours or x4	4
83 IPPB or maximist	q.4 hours or x6	6
84 Croup tent or mist tent		8
85 Chest pulmonary therapy	b.i.d. or x2	2
86 Chest pulmonary therapy	q.6 hours or x4	4
87 Chest pulmonary therapy	q.4 hours or x6	6
88 Suctioning	q.4 hours or x6	2
89 Suctioning	q.2 hours or x12	4
90 Ventilator		10
91 Tracheostomy care	x3	4
Teaching		
92 Group teaching	per hour	2
93 Individual teaching	per 30 min	4
Emotional support		
94 Patient and/or family support	per 30 min	4
95 Lifestyle modification	per 30 min	4
96 Sensory deprivation—blind, deaf, retarded, etc.		6
97 Maximum points for emotional support		10
Continuous		
98 Patient requiring 1-to-1 coverage, all shifts		96
99 Patient requiring greater than 1-to-1 coverage, all shifts		146

Table 3-2. Psychiatric critical indicators.

AC	Frequency	Point value
VS		
100 VS	q.i.d. or less	1
101 VS	q.4 hours or x6	2
102 VS	q.3 hours or x8	3
103 VS	q.2 hours or x12	4
104 VS	q.1 hour or x24	8
105 Tilt tests	q.4 hours or more	2
Monitoring		
106 I&O	q.8 hours	2
107 Circulation checks	q.2 hours or x12	2
108 Patient checks	q.30 min per 8 hours	8
109 Patient checks	q.15 min per 8 hours	16
110 Neuro checks	q.4 hours or x6	3
ADL		
111 Care—age 6 or more—self		2
112 Care—age 6 or more—assisted		6
113 Care—age 6 or more—complete		14
Feeding		
114 Spoon feed or 1-to-1 at meals	x3	6
115 Tube feed—bolus	q.4 hours or x6	5
116 Escort patient to dining hall		2
Treatments, procedures, and/or medications		
117 Start IV, Ace wraps, ECG, tube care, insert NG or urinary catheter, preoperation preparation, or enema		2
118 Dressing—simple	15 min	2
119 Dressing—complex	30 min	4
120 Laboratory tests performed or collected on the unit	x3	2
121 ECG		2
122 Venipuncture, arterial puncture	x2	2
123 Medications—exclude IV	3 to 11 trips	2
124 Medications—exclude IV	12 or more trips	4
125 Restraints, 2-point, 4-point, Posey		2
126 New Admission—assessment and orientation		12
127 Transfer—between psychiatric units		4
128 Accompany patient off unit	15 min	2
129 Accompany patient off unit	30 min	4
130 Accompany patient off unit	45 min	6
131 Other activities	15 min	2
132 Other activities	30 min	4
133 Other activities	45 min	6
134 Each hour requiring continuous staff attendance		8
Therapeutic interventions or activities		
135 Purposeful interaction	15 min	2
136 Purposeful interaction	30 min	4
137 Purposeful interaction	45 min	6
138 Purposeful interaction	1 hour	8
139 Sensory deprivation—blind, deaf, retarded, etc.		6
140 Group activity—on unit	45 min to 1 hour	2
141 Group activity—off unit ratio 1:4	45 min to 1 hour	2
142 Group activity—meeting ratio 1:4-5	45 min to 1 hour	2
Teaching		
143 Group teaching	per hour	2
144 Individual—preoperation, discharge, diabetic	per 30 min	4
Continuous		
145 Patient requiring 1-to-1 coverage, all shifts		96

c. If the frequency of the task to be performed is correctly defined by the critical indicator, enter the number 1 into the computer. If the critical indicator is performed more frequently or by more than one person, multiply the critical indicator by the appropriate number. For example, if neuro checks, AC 13, are to be performed every hour instead of every 2 hours, enter the number 2 for AC 13, thereby chang-

ing the point value from 6 to 12. When two or more staff members are required to perform a nursing activity, such as AC 63, assist out of bed, enter the number of staff required. By entering the frequency or the increased number of staff required, the computer software will calculate the correct number of points for each critical indicator.

d. Documents used to select critical indicators are—

- (1) Unit or hospital-specific SOPs.
- (2) DON administrative procedures.
- (3) DA Form 3888 and DA Form 3888-1.
- (4) Nursing unit standards of care.
- (5) Inpatient history and physical.
- (6) DA Form 4677 and DA Form 4678.
- (7) DA Form 4700.
- (8) SF 511.
- (9) SF 510.

e. Patients admitted to the unit, but who are on pass for 24 hours or longer are placed in category 0. This is to ensure that the total number of patients classified matches the unit census. Place patients in category 0 on the day the pass begins and each subsequent day for which a pass has been ordered. On the day the patient is expected to return to the unit, classify the patient into the appropriate acuity category. For example, if a patient is on a 3-day pass starting on Friday and ending on Sunday, the patient would be placed in category 0 on Friday and Saturday, but would be classified into the appropriate acuity category on Sunday.

3-2. Operational Descriptions

a. The following information provides operational descriptions for each specific activity included under a critical indicator heading.

b. Each operational definition includes time for the following activities:

- (1) Identifying and screening the patient.
- (2) Explaining the procedure to the patient.
- (3) Performing the procedure.
- (4) Raising, lowering, or adjusting the bed before and after the nursing activity.
- (5) Cleaning and straightening the area.
- (6) Recording any activity on bedside records.
- (7) Spending time at the patient's bedside

providing information, answering patient questions, and interacting with the patient.

c. Operational descriptions are given for each critical indicator. This is to describe the activity that is associated with that particular critical indicator.

d. Operational descriptions linked by "+" are included in the time allowance (point value) for that critical indicator. A patient may require one or more (any combination) of the activities listed for a specific critical indicator. If a patient does not require every single activity linked by a "+," the full point value should still be counted. For example, see AC 2, VS q.4 hours or x6, with a point value of 2. The operational description includes—

- (1) Oral temperature, pulse, and respiration.

+

- (2) Blood pressure manual.

+

- (3) Blood pressure, arteriosonde.

The patient may require (1) and (2), (1) and (3), or only (3). The point value is 2 for any single activity or combination of activities listed under this critical indicator.

e. Operational descriptions linked by the word *or* indicate that the same time allowance (point value) is to be assigned to *each* of the operational descriptions. For example, see AC 15, central venous pressure (CVP) or intracranial pressure (ICP) (monitoring, manual), q.2 hours or x12 (see para 3-4d below), with a point value of 2. The operational description includes—

- (1) CVP (2 points).

or

- (2) ICP (2 points).

(3) CVP and ICP (4 points). Two points are allowed for each activity.

f. Special considerations or explanations for each critical indicator are designated by the word *Note*.

Section II. GENERAL CRITICAL INDICATORS

3-3. Vital Signs

a. AC 1 to 5: VS (*temperature, pulse, respiration, and blood pressure*) (AC 1 (1 point): VS q.i.d. or less; AC 2 (2 points): VS q.4 hours or x6; AC 3 (3 points): VS q.3 hours or x8; AC 4 (4 points): VS q.2 hours or x12; and AC 5 (8 points): VS q.1 hour or x24).

- (1) *Note*.

(a) VS q.i.d. or less is the only critical indicator with a 1 point value.

(b) VS q.4 hours or x6 in a 24-hour period is equal to 2 points. VS q.2 hours or x12 is twice as often, therefore equal to twice as many points; that is, 4 points; and VS q.1 hour or x24 is equal to 8 points. VS taken every 30 minutes x24 hours would

be valued at 16 points.

(c) Select the point allowance to fit the VS frequency. Add points when using an alternate method of taking pulses or temperatures *if taken q.i.d. or more often*. For example, a patient may need to have VS q.4 hours to include both a rectal temperature and apical pulse. In this case, count 2 points for VS q.4 hours, 2 points for the rectal temperature, and 2 points for the apical pulse for a total of 6 points for this critical indicator for the 24-hour period.

VS q.4 hours	= 2 points
Rectal temperature	= 2 points
Apical pulse	= 2 points
Total	6 points

- (2) *Operational description*.

(a) Oral temperature, pulse, and respiration: Includes time to place equipment at the bedside, position the temperature probe or thermometer, count the respiratory rate while the fingers are placed over the radial artery pulse, remove the fingers from the radial pulse, record the results of measurements, and remove the equipment from the area.

+

(b) Blood pressure, manual: Includes time to place equipment at the bedside, place the cuff around the extremity, position the stethoscope, measure blood pressure, remove the cuff, record results, and remove the equipment from the area.

+

(c) Blood pressure, arteriosonde: Includes time to apply electrode gel to the cuff, position the cuff around the extremity, measure blood pressure, remove the cuff, cleanse the gel from the extremity, store the equipment at the bedside, and record the results.

+

(d) Blood pressure, cuff monitor: Includes time to apply the automatic cuff, take the blood pressure reading, and record the results at the bedside. Includes time to validate the automatic reading with a stethoscope as needed.

b. AC 6 (2 points): Rectal or axillary temperatures or apical pulses q.i.d. or more.

(1) Note.

(a) Do not increase point value for increased frequency. If rectal temperature is taken at least q.i.d., then add 2 points, but even if more frequently taken (for example, q.4 hours) still only count 2 points.

(b) If rectal temperature and apical pulse both are taken q.i.d. or more frequently, take 2 points for each for a total of 4 points. For example, a patient may need to have both a rectal temperature and apical pulse check q.i.d. Count 2 points for the rectal temperature and 2 points for the apical pulse for a total of 4 points for the 24-hour period.

(2) Operational description.

(a) Rectal temperature, electronic or mercury (2 points): Includes time to place the equipment at the bedside, adjust clothing, insert the temperature probe or thermometer in the anus, measure the temperature, remove the temperature probe or thermometer, record, and remove the equipment from the area.

or

(b) Axillary temperature, electronic or mercury (2 points): Includes time to place equipment at the bedside, place the temperature probe or thermometer in the axillary area, measure the tempera-

ture, remove the temperature probe or thermometer, record, and remove the equipment from the area.

or

(c) Apical pulse (2 points): Includes time to place the equipment at the bedside, place the stethoscope over the apex of the heart and count the rate, remove the stethoscope, record the pulse rate, and remove the equipment from the area.

c. AC 7 (2 points): Pedal, femoral, or popliteal pulses or fetal heart tones (FHT) q.i.d. or more.

(1) Note.

(a) Do not increase allowance for increased frequency.

(b) Add 2 points for each activity required.

(c) Femoral or pedal pulses or FHT must be taken q.i.d. before the 2 points are counted; however, since the critical indicator category states q.i.d. or more, additional points may not be taken if done more frequently.

(d) For patients with pedal pulses q.4 hours and FHT q.i.d., count 2 points for each activity for a total of 4 points.

(e) Multiply points to take FHT for multiple gestation pregnancies.

(2) Operational description.

(a) Pedal or femoral or popliteal pulse (2 points): Includes time to place the fingers on the pedal, femoral, or popliteal pulse, count the rate, remove the fingers from the area, and record results.

or

(b) Doppler pulse (2 points): Includes time to place the equipment at the bedside, place the sensor over the pulse area, assess and record the pulse rate, and remove the equipment from the area.

or

(c) FHT, manual (2 points): Includes time to expose the abdominal area, assess the FHT with a stethoscope, record the FHT, and remove the equipment from the area.

or

(d) FHT, doppler (2 points): Includes time to expose the abdominal area, locate the FHT with a fetoscope, assess the FHT utilizing the doptone, record the results, and remove the equipment from the area.

d. AC 8 (2 points): Tilt test q.4 hours or more.

(1) Note.

(a) Do not increase the allowance for increased frequency.

(b) This allows for a lying, sitting, and standing value. Use this critical indicator category even if only lying and sitting tests are done.

(2) Operational description.

(a) Blood pressure, lying: Includes time to

place the equipment at the bedside, place the cuff around the extremity, position the stethoscope, measure the blood pressure, remove the cuff, record the results, and remove the equipment from the area.

+

(b) Blood pressure, sitting: Includes time to place the equipment at the bedside, place the cuff around the extremity, position the stethoscope, measure the blood pressure, remove the cuff, record the results, and remove the equipment from the area.

+

(c) Blood pressure, standing: Includes time to place the equipment at the bedside, place the cuff around the extremity, position the stethoscope, measure the blood pressure, remove the cuff, record the results, and remove the equipment from the area.

+

(d) Assist with position change: Includes time to assist the patient from the lying position to a sitting position and to a standing position.

e. AC 9 (6 points): *Post operative, postpartum, or post delivery newborn VS.*

(1) Note.

(a) Refers to a pattern of decreasing frequency of VS that typically has the following pattern: Every 15 min x4, then every 30 min x4, then every hour x4, then every 4 hours for the remainder of the 24-hour period.

(b) Includes VS taken after surgery, after delivery (mother), and for the first 24 hours of the newborn's life.

(c) Refers to VS of decreasing frequency following any special procedure; for example, post-arteriogram when VS are q.15 min x4, q.30 min x4, q.1 hour x4, then q.4 hours.

(d) Use this critical indicator category even if the described pattern is not exact; for example, if checking the VS every 30 min x4, then every hour x2, then every 4 hours.

(2) Operational description.

(a) Oral temperature, pulse, and respiration: Includes time to place the equipment at the bedside and position the temperature probe or thermometer. Count the respiratory rate while the fingers are placed over the radial artery pulse. Remove the fingers from the radial pulse, record the results of the measurements, and then remove the equipment from the area.

+

(b) Blood pressure, manual: Includes time to place the equipment at the bedside, place the cuff around the extremity, position the stethoscope, measure the blood pressure, remove the cuff, record the results, and remove the equipment from the area.

+

(c) Blood pressure, arteriosond: Includes time

to apply electrode gel to the cuff, position the cuff around the extremity, measure the blood pressure, remove the cuff, cleanse the gel from the extremity, store the equipment at the bedside, and record the results.

3-4. Monitoring

a. AC 10 and 11: *Intake and output (I&O) (AC 10 (2 points): I&O q.8 hours and AC 11 (8 points): I&O q.2 hours).*

(1) Note.

(a) Increase the point value for increased frequency. I&O must be done at least every 8 hours or once a shift in order to use this indicator.

(b) I&O includes time to measure all forms of I&O, including diaper weights.

(c) Patients on just intake or just output will not receive points.

(2) Operational description.

(a) Measuring and recording intake: Includes time to place a calibrated cylinder or container at the bedside, measure or calculate the fluids, record the amount on the I&O record, and remove the equipment from the area.

+

(b) Measuring and recording output—urine: Includes time to place a calibrated cylinder at the bedside, measure or calculate the volume, record the amount on the I&O record, and remove the equipment from the area.

+

(c) Measuring and recording output—liquid feces: Includes time to remove the bedpan from the patient's bedside, measure the feces in a calibrated cylinder, and record the amount on the I&O record.

+

(d) Measuring and recording output—vomit: Includes time to remove the container from the patient's bedside, measure the vomit in a calibrated cylinder, and record the amount on the I&O record.

+

(e) Measuring and recording output—drainage bottles of all types: Includes time to place a calibrated cylinder at the bedside, pour the contents from the drainage bottle into the calibrated cylinder, measure or calculate the volume, replace the drainage bottle, record the amount on the I&O record, and remove the equipment from the area.

+

(f) Output weight, diaper or bed linens: Includes time to complete the procedure for a diaper change and bed linen change, remove the items to be weighed, weigh them on weight scales, and record the results.

b. AC 12 (2 points): *Circulation checks or fundus check q.2 hours or x12.*

(1) *Note.*

(a) Add points for each activity required. For example, a patient may require both circulation and fundus checks q.2 hours or x12 in a 24-hour period. In this case, 2 points are earned for the circulation check and 2 points for the fundus check, for a total of 4 points in a 24-hour period.

(b) Circulation or fundus checks must be done at least q.2 hours before they count. The circulation check includes checking for movement and sensation.

(2) *Operational description.*

(a) Circulation check (2 points): Includes time to arrive at the bedside, check the extremity for swelling, numbness, and tingling; evaluate temperature and color of the skin; and assess the patient's ability to move the part.

or

(b) Fundus check (2 points): Includes time to arrive at the bedside, expose the patient's lower abdominal area, massage the fundus, assess the height of the uterus, and record the type and amount of lochia.

c. AC 13 and 14 *Neuro check* (AC 13 (3 points): *Neuro checks q.4 hours or x6 and AC 14 (6 points): Neuro checks q.2 hours or x12.*

(1) *Note.*

(a) The neuro check includes checking pupils, mental alertness, orientation, sensory discrimination, and motor and sensory testing.

(b) The neuro checks must be at least every 4 hours (2 times in a shift) or x6 in a 24-hour period in order to count. Increase the point value for corresponding increases in frequencies, for example, a neuro check every hour would equal 12 points.

(2) *Operational description.*

(a) Pupil reflexes: Includes time to place the equipment at the bedside, adjust the room lighting, assess pupillary reflexes with a flashlight, and remove the equipment from the area.

+

(b) Mental alertness: Includes time to arrive at the bedside; make inquiries within the framework of interviewing that will give information about the patient's level of consciousness, memory, intellectual performance, and judgment; and record the results.

+

(c) Orientation: Includes time to arrive at the bedside; make inquiries within the framework that will give information about patient's orientation to time, place, and person; and record the results.

+

(d) Sensory discrimination: Includes time to

screen for pain, vibration, light touch, and stereognosis intact, and record the results.

+

(e) Motor or sensory testing: Includes time to arrive at the bedside and assess extremities for sensation awareness and muscle strength.

d. AC 15 (2 points): *CVP or ICP monitoring, manual q.2 hours x12.*

(1) *Note.*

(a) Add points for each activity required. For example, if a patient had either of these procedures ordered, 2 points would be added to the acuity score. If both were ordered, 4 points would be added. Both procedures must be done at least q.2 hours or x12 to take the 4 points.

(b) Manual means using a manometer, not a Swan Ganz or electronic ICP machine.

(c) Increase the point value for a corresponding increase in frequency. For example, CVP q.1 hour would equal 4 points.

(2) *Operational description.*

(a) Central venous pressure (2 points): Includes time to set up the equipment for measurement of the pressure, position the patient and assess the sternal angle, measure the pressure, restore the equipment to its original position, and record the results. (Does not include insertion time. Count insertion time under ACs 75 to 78).

or

(b) ICP (2 points): Includes time to set up the equipment, measure the pressure, restore the equipment to its original position, and record the results. (Does not include insertion time.)

e. AC 16 (6 points): *Cardiac, apnea, temperature probe, and/or blood pressure monitoring, electronically (not cumulative).*

(1) *Note.* If the patient is on any one or more of the following cardiac, apnea, temperature and/or blood pressure monitor procedures, a total of 6 points is counted. Six points are earned regardless of the number of monitors in use. Points are not additive.

(2) *Operational description.*

(a) Adjusting monitors, connecting leads, or resetting alarms: Upon arrival at the bedside, adjust the monitor, connect the leads, or reset the alarm; then depart the area. (Also includes time for observation of the monitors.)

+

(b) Off ward telemetry (the patient located on one unit but monitored at a different location): Includes time for the patient's unit to check the patient, adjust the telemetry unit, connect the leads, or reset the telemetry unit.

f. AC 17 (6 points): *Transcutaneous monitor or pulse oximeter. Operational description.*

(1) Transcutaneous monitor (6 points): Includes time to place equipment at the bedside, apply a new probe, check the monitor calibration, and remove equipment from the area, q.4 hours. (Also includes time for observation of the monitor.)

or

(2) Pulse oximeter (6 points): Includes time to place equipment at the bedside, check calibration, apply sensor, obtain an oximeter reading, and remove equipment from the bedside at least q.4 hours.

g. AC 18 (4 points): Arterial line (A-line), ICP monitor, or Swan Ganz setup.

(1) Note.

(a) Point values are for actually setting up the equipment at the bedside for A-line or ICP monitor or Swan Ganz setup.

(b) Add points for each setup required. For example, a patient requiring any one of these three procedures would have 4 points added to his or her acuity score for the 24-hour period. If all three procedures were done, 12 points (3x4=12) would be added.

(c) Does not include insertion time. Count insertion time under ACs 75 to 78.

(2) Operational description.

(a) A-line setup or transducer exchange (4 points): Includes time to place the equipment at the bedside and set up the transducer tray, intravenous (IV) solution, and cardiac monitor; calibrate the monitor; and measure the transducer current with a mercury sphygmomanometer; measure and record the pulmonary artery pressure and/or pulmonary artery wedge; and remove the equipment from the area.

or

(b) ICP line setup or transducer exchange (4 points): Includes time to set up the transducer tray, IV solution, and ICP monitor; calibrate the monitor; measure the transducer current with a mercury sphygmomanometer; and remove the equipment from the area.

or

(c) Swan Ganz catheter setup or transducer exchange (4 points): Includes time to place the equipment at the bedside and set up the transducer tray, IV solution, and cardiac monitor; calibrate the cardiac monitor; then measure the transducer current with a mercury sphygmomanometer; measure and record the pulmonary artery pressure and/or pulmonary wedge; and remove the equipment from the area.

h. AC 19 (2 points): A-line or ICP monitor reading q.2 hours or x12.

(1) Note.

(a) Add points for each activity required.

(b) A-line or ICP monitor readings performed q.2 hours x12 equals 2 points. If done every hour, it equals 4 points. Readings must be recorded to count.

(2) Operational description.

(a) Blood pressure A-line (2 points): Includes time to arrive at the bedside, flush the line, assess, calculate the pressure, and record the results.

or

(b) ICP (monitor) (2 points): Includes time to arrive at the bedside, flush the line, assess, calculate the pressure, and record the results.

i. ACs 20 and 21: Swan Ganz pulmonary artery pressure (PAP) and pulmonary artery wedge pressure readings (AC 20 (2 points): readings q.4 hours x6 and AC 21 (4 points): readings q.2 hours x12).

(1) Note. PAP and pulmonary artery wedge pressure readings must be recorded to count.

(2) Operational description.

(a) PAP: Includes time to arrive at the bedside and assess and record the findings.

+

(b) Pulmonary artery pressure wedge: Includes time to arrive at the bedside, flush the line, slowly inject air into the Swan Ganz catheter, assess and calculate the wedge pressure, and record the results.

j. AC 22 (2 points): Cardiac output 3 times a day (t.i.d.).

(1) Note. Cardiac outputs must involve nursing personnel time to count. (If the physician performs the test without assistance, it does not count.)

(2) Operational description (cardiac output measurement). Includes time to place the equipment at the bedside, assess or complete the measurement, and remove the equipment from the area.

3-5. Activities of Daily Living

a. All patients except those in category 0 must be classified in this critical indicator group. See table 3-3 for a summary of operational descriptions for activities of daily living (ADL).

b. Points may not be doubled.

c. Count activities of daily living for all patients even if the care is provided by the family. It is still the responsibility of the nursing staff to provide this care. The family must be instructed about the care and the professional nurse monitors the care provided. The family member cannot be held accountable for the care.

d. AC 23 (6 points): Care—infant and toddler (for children 5 years old or less).

(1) Note.

(a) Infant or toddler care (5 years of age or less): Includes neonates and premature infants.

(b) Take the total 6 points for newborn, infant, or toddler care if the patient is rooming in. This is to

Table 3-3. Summary of operational descriptions for ADL.

	Meds	Assess	Questions	Meal Tray	Bed Linen	Bath	Wt	Bed Pan	Turn	Skin Care
Self	b.i.d. or less	X	X	X	unocc	supply equip/indepen	-	-	-	-
Assisted	b.i.d. or less	X	X	X	unocc	help: bed/tub shower bathe	amb	-	-	-
Complete	b.i.d. or less	X	X	X	occ		bed/amb	X	help	-
Total	b.i.d. or less	X	X		occ	bathe oral q.4 hours	bed	X	q.2 hours	q.2 hours
Peds	b.i.d. or less	X	X	X	occ	bathe dress prn	X	- dia-pers	-	cord care

Note. Extra linen—Partial bath and linen change x2 per shift for incontinent or diaphoretic patients and diapered adults.

account for nursing staff time required to assess and oversee the child and parent, even when the parent is providing the care.

(c) Infant or toddler care includes time to give a complete bath or tub bath, before noon (a.m.) care, afternoon (p.m.) care, washing the face and hands routinely, according as circumstances may require (prn) diaper changes or assisting the child to the bathroom, changing clothes and linens, ambulatory weight or infant weight measurements, serving the meal tray, routine nursing assessments, and answering patient or family questions. Also includes the administration of non-IV medication, twice a day (b.i.d.) or less.

(2) Operational description.

(a) Bathing, complete: Includes time to place the equipment at the bedside; remove the shirt and diaper; bathe the face, chest, abdomen, and extremities; change water, bathe the back, buttocks, and perineal area; replace the shirt and diaper; and remove the equipment from the area.

+

(b) Tub bath: Includes time to arrive in the bathroom; assist the patient in undressing, into the bathtub, with the bath, and redressing, and back into the bed.

+

(c) A.M. care: Includes time to place the equipment at the bedside; assist the patient with bathing the face and hands and brushing the teeth; and remove the equipment from the area.

+

(d) P.M. care: Includes time to place the equipment at the bedside; bathe the face and hands,

brush the teeth, and rub the back; straighten bed linens; and remove the equipment from the area.

+

(e) Umbilical cord care: Includes time to place the equipment at the bedside, cleanse the umbilicus with antiseptic solution, expose it to air and dry it, and remove the equipment from the bedside.

+

(f) Bathing, face and hands (routine and prn): Includes time to arrive at the bedside, bathe the face and hands, and remove used equipment from the area.

+

(g) Diaper change: Includes time to arrive at the bedside, expose the baby, remove the soiled diaper, cleanse the buttocks and genitalia, diaper the baby, position and cover the baby, and remove the equipment from the area.

+

(h) Assist to the bathroom: Includes time to assist the toilet-trained toddler to the bathroom, in removing pants, cleansing the buttocks and genitalia, and redressing.

+

(i) Changing a shirt: Includes time to arrive at the bedside, change the soiled shirt, and remove the soiled shirt from the area.

+

(j) Occupied bed: Includes time to place linen at the bedside, turn the patient on his or her side, roll the dirty linen to one side of the bed, replace it

with clean linen, turn the patient to the freshly made side of the bed, remove the soiled linen and complete the bed making, and remove the soiled linen from the area.

+

(k) Unoccupied bed: Includes time to place linen at the bedside, remove the soiled linen, place the bottom sheet on the mattress, then place on the top sheet; change the pillowcases, and remove the soiled linen from the area.

+

(l) Ambulatory weight: Includes time to place the equipment at the bedside, assist the patient onto the scales, balance the scales, read and record the weight reading, assist the patient off the scales, and remove the equipment from the area.

+

(m) Weight—infant: Includes time to arrive at the bedside, remove the baby's clothing, place the baby on balanced infant weight scales, read and record the weight, return the baby to bed, dress the baby, and remove the used equipment from the area.

+

(n) Serving the meal tray (preparation required): Includes time to place the tray at the bedside, prepare the food and utensils, and prepare the towel or napkin as a bib.

+

(o) Nursing assessment: Includes time spent at the patient's bedside assessing the patient's condition and problems, formulating nursing diagnoses and interventions, and evaluating the effectiveness of interventions.

+

(p) Answering patient or family questions: Includes time spent answering the patient or family's questions or in response to the patient's call system.

e. AC 24 (2 points): Care—self or minimal (adult or child 6 years old or older).

(1) *Note.* Self or minimal care (adult or child 6 years old or older): Includes time for administration of non-IV medications b.i.d. or less, providing the equipment for a self bath, serving the meal tray, making an unoccupied bed, routine nursing assessments, and answering patient questions.

(2) *Operational description.*

(a) Bathing: Includes time to place equipment at the bedside, for the patient to bathe and change pajamas, and to remove equipment from the area.

+

(b) Serving the meal tray: Includes time to place the tray at the bedside.

+

(c) Unoccupied bed: Includes time to place linen at the bedside, remove soiled linen, place the bottom sheet on the mattress, place on the top sheet, change pillowcases, and remove soiled linen from the area.

+

(d) Nursing assessment: Includes time spent at the patient's bedside assessing patient condition and problems; formulating nursing diagnoses and interventions; and evaluating the effectiveness of interventions.

+

(e) Answering patient questions: Includes time spent answering the patient's questions or in response to the patient's call system.

f. AC 25 (6 points): Care—assisted (adult or child 6 years old or older, able to position him- or herself).

(1) *Note.*

(a) Assisted care (adult or child 6 years old or more): Includes time for administration of non-IV medications b.i.d. or less, assisting with bathing the back and legs or assisting with a shower or tub bath, a.m. care, p.m. care, serving the meal tray with some preparation of the food, ambulatory weight measurements, making an unoccupied bed, routine nursing assessment, and answering patient questions.

(b) Patient is able to position self in bed.

(2) *Operational description.*

(a) Bathing; assisting with back and legs: Includes time to place the equipment at the bedside, remove the pajamas, allow for patient bathing, change the water, bathe the back and lower extremities, replace the pajamas, and remove the equipment from the area.

+

(b) Sitting shower or shower with assistance: Includes time to arrive in the shower room and assist the patient in undressing, into the shower, with the bath and hair shampoo, in redressing, and back into bed. (Remain with the patient.)

+

(c) Tub bath: Includes time to arrive in the bathroom and assist the patient in undressing, into the bathtub, with a bath, in redressing, and back into bed. (Remain with the patient.)

+

(d) A.M. care: Includes time to place the equipment at the bedside, assist the patient with bathing the face and hands and in brushing the teeth, and remove the equipment from the area.

+

(e) A.M. care, partial: Includes time to place the equipment at the bedside, prepare bath water and put toothpaste on the toothbrush, and remove the equipment from the area.

+

(f) P.M. care: Includes time to place the equipment at the bedside, assist the patient with bathing the face and hands and in brushing the teeth, give a back rub, tighten and straighten the bed linens, and remove the equipment from the area.

+

(g) Serving the meal tray (preparation required): Includes time to place the tray at bedside, prepare the food and utensils, and prepare a towel or napkin as a bib.

+

(h) Ambulatory weight: Includes time to place the equipment at the bedside, balance the scales, assist the patient onto the scales, read and record weight, assist the patient off the scales, and remove the equipment from the area.

+

(i) Unoccupied bed: Includes time to place linen at the bedside, remove the soiled linen, place the bottom sheet on the mattress, add a top sheet, change the pillowcases, and remove the soiled linen from the area.

+

(j) Answering the patient's questions: Includes time spent answering the patient's questions or in response to the patient's call system.

+

(k) Nursing assessment: Includes time spent at the patient's bedside assessing the patient's condition and problems, formulating nursing diagnoses and interventions, and evaluating the effectiveness of interventions.

g. AC 26 (14 points): Care—complete (adult or child 6 years or older who needs assistance with positioning).

(1) Note.

(a) Complete care (adult or child 6 years or older): Includes time for administration of non-IV medications b.i.d. or less, a complete bed bath, a.m. and p.m. care, weighing the patient, giving the bedpan and/or urinal to the patient, making an occupied bed, serving the meal tray with preparation required, assisting with positioning and repositioning the patient, answering the patient's questions, and routine nursing assessments.

(b) Needs assistance with positioning in bed.

(c) The primary difference between an

assisted care patient and a complete care patient is that the complete care patient requires a bed bath.

(2) *Operational description.*

(a) Bathing, complete: Includes time to place the equipment at the bedside; remove the pajamas; bathe the face, chest, abdomen, and extremities; change the water; bathe the back, buttocks, and perineal area; replace the pajamas; and remove the equipment from the area.

+

(b) A.M. care: Includes time to place the equipment at the bedside, assist the patient with bathing the face and hands and brushing the teeth, and remove the equipment from the area.

+

(c) P.M. care: Includes time to place the equipment at the bedside, assist the patient with bathing his or her face and hands and brushing the teeth, rub the back, tighten and straighten the bed linens, and remove the equipment from the area.

+

(d) Weight: Includes time to place the equipment at the bedside, balance the scales, assist the patient onto the scales, read and record weight, assist the patient in getting off the scales, and remove the equipment from the area.

+

(e) Giving a bedpan: Includes time to place a bedpan at the bedside, place the patient onto the bedpan, provide toilet tissue, remove the patient from the bedpan, cover the bedpan, and remove the equipment from the area.

+

(f) Giving a urinal: Includes time to place a urinal at the patient's bedside, remove the cover, adjust the patient's pajamas for placement of the urinal, remove the urinal from the patient, replace the cover, and remove the urinal from the area.

+

(g) Occupied bed: Includes time to place linen at the bedside, turn the patient on his or her side, roll the linen to one side of the bed and replace it with clean linen, turn the patient to the freshly made side of the bed, remove the soiled linen and complete the bed making, and remove the soiled linen from the area.

+

(h) Serving the meal tray (preparation required): Includes time to place the tray at bedside, prepare the food and utensils, and prepare a towel or napkin as a bib.

+

(i) Assist with positioning: Includes time to remove the support pillows and assist the patient to a new position.

+

(j) Answering the patient's questions: Includes time spent in answering the patient's questions or in response to the patient's call system.

+

(k) Nursing assessment: Includes time spent at the patient's bedside assessing the patient's condition and problems, formulating nursing diagnoses and interventions, and evaluating the effectiveness of interventions.

h. AC 27 (32 points): Care—total (adult or child 6 years old or more).

(1) Note.

(a) Total care (adult or child 6 or older): Includes administration of non-IV medications b.i.d. or less, a complete bath, a.m. and p.m. care, skin care q.2 hours, oral hygiene q.4 hours, making an occupied bed, turning the patient q.2 hours, giving a bedpan and/or urinal, a bed scales weighing, answering patient questions, and routine nursing assessment.

(b) The primary difference between a complete care patient and a total care patient is that the total care patient requires positioning every 2 hours and skin care, in addition to a complete bed bath.

(2) Operational description.

(a) Bathing, complete: Includes time to place the equipment at the bedside; remove the pajamas; bathe the face, chest, abdomen, and extremities; change the water; bathe the back, buttocks, and perineal area; replace the pajamas; and remove the equipment from the area.

+

(b) A.M. care: Includes time to place the equipment at the bedside, assist the patient with bathing the face and hands and brushing the teeth, and remove the equipment from the area.

+

(c) P.M. care: Includes time to place the equipment at the bedside, assist the patient with bathing the face and hands and brushing the teeth, rub the back, adjust the bed linens, and remove the equipment from the area.

+

(d) Skin care: Includes time to place the equipment at the bedside, cleanse and dry areas for special care (buttocks, hips, shoulders, and heels), apply lotion, and remove the equipment from the area, q.2 hours.

+

(e) Oral hygiene: Includes time to place the equipment at the bedside; turn the patient on his or her side; cleanse the gums, teeth, and mouth with applicators; and remove the equipment from the area, q.4 hours.

+

(f) Occupied bed: Includes time to place linen at the bedside, turn the patient on his or her side, roll the linen to one side of the bed and replace it with clean linen, turn the patient to the freshly made side of the bed, complete the bed making, and remove the soiled linen from the bed, b.i.d.

+

(g) Turn the patient: Includes time to remove the support pillows, reposition the patient, and reapply support pillows, q.2 hours.

+

(h) Giving a bedpan: Includes time to place a bedpan at the bedside, place the patient onto the bedpan, provide toilet tissue, remove the patient from the bedpan, cover the bedpan, and remove the bedpan from the area.

+

(i) Giving a urinal: Includes time to place a urinal at the patient's bedside, remove the cover, adjust the patient's pajamas for placement of the urinal, remove the urinal from the patient and replace its cover, and remove the urinal from the area.

+

(j) Bed scales weight: Includes time to place the equipment at the bedside, balance the scales, assist the patient onto the scales, read and record weight, assist the patient in getting off the scales, and remove the equipment from the area.

+

(k) Answering the patient's questions: Includes time spent in answering the patient's questions or in response to the patient's call system.

+

(l) Nursing assessment: Includes time spent at the patient's bedside assessing the patient, formulating nursing diagnoses and interventions, and evaluating the effectiveness of interventions.

i. AC 28 (4 points): Extra linen change with partial bath (2 times per shift).

(1) Note. Anytime a patient requires an extra linen change and partial bath twice per shift, such as for vomiting, incontinence, or diaphresis, add 4 additional points to any of the care indicators listed above.

(2) Operational description.

(a) Incontinent care (4 points): Includes time to place the equipment at the patient's bedside; bathe the buttocks, perineum, and thighs; change the bedding; and remove the equipment and soiled linen from the area (2 times per shift).

or

(b) Diaphoretic (4 points): Includes time to place the equipment at the bedside, dry the patient's skin, change pajamas, change bedding, and remove the equipment from the area (2 times per shift).

j. AC 29 (14 points): *Turning frame (2 staff to turn, q.2 hours).*

(1) Note. This critical indicator includes time for two people to turn the patient every 2 hours.

(2) Operational description. Includes time to remove or secure the support pillows and devices, place and secure the restraining straps, unlock the frame, turn the frame according to specification, lock the frame, remove the restraining straps, and adjust the pillows and support devices.

k. AC 30 (8 points): *Pediatric recreation and observation for children 0 to 12 years (includes newborn nursery).*

(1) Note. Pediatric recreation and observation for children 12 years old or less includes nursery babies. This includes time spent in supervising recreational activities, answering the patient's questions and responding to crying, visiting with the child, holding the infant and generally keeping an eye on the child. Unless documented in the medical or nursing orders, this critical indicator is not to be given automatically to any child less than 12 years old. For example, a mother (or family member) rooming in with the child may provide recreational activities and/or supervisory activities without staff involvement.

(2) Operational description.

(a) Planned recreational activity session: Includes time spent in supervising recreational activity.

+

(b) Answering the patient's questions and responding to crying: Includes time spent in answering the patient's questions or in response to the patient's call system or patient crying.

+

(c) Visiting with the patient or purposeful interaction: Includes time spent at the patient's bedside without providing any direct physical care to the patient but that is not in response to the patient's call system or the patient's questions.

+

(d) Holding—infant: Includes time to arrive at the bedside, wrap the baby in a blanket, and pick up and hold the baby. When completed, position the

baby in the bed and cover him or her with the blanket.

3-6. Feeding

a. General information. Parenteral nutrition (parenteral hyperalimentation) is to be treated as an IV line (see para 3-7).

b. ACs 31 and 32: *Spoon feed meals (AC 31 (6 points): Spoon feed meals—age 6 or more x3 and AC 32 (10 points): Spoon feed meals—age 5 or less x3).*

(1) Note. Count adult or child meals only if the patient must be spoon fed each meal. Otherwise, time to serve and prepare the tray is included in the activities of daily living critical indicator (see para 3-5).

(2) Operational description. Includes time to place the meal tray at the bedside, place the towel or napkin as a bib, prepare the food, feed the patient slowly, and remove the tray from the area.

c. ACs 33 to 35: *Infant or neonate—bottle feeding (AC 33 (2 points): Infant or neonate—bottle x1 feeding; AC 34 (12 points): Infant or neonate—bottle q.4 hours or x6; and AC 35 (16 points): Infant or neonate—bottle q.3 hours or x8).*

(1) Note. Well baby nurseries with rooming-in should allot 2 points for each infant feeding given by nursery personnel.

(2) Operational description.

(a) Feeding—graduated feeder: Includes time to place the equipment at the bedside, pick up the baby, wrap the baby in a blanket, hold the baby in the feeding position, feed the baby, bubble the baby, reposition him or her in the bed (isolette, incubator, etc.), and remove the equipment from the area.

+

(b) Feeding—bottle: Includes time to place the equipment at the bedside, pick up the baby, wrap the baby in a blanket, hold him or her in the feeding position, feed the baby, bubble the baby, reposition him or her in the bed, and remove the equipment from the area.

d. ACs 36 to 38: *Tube feeding bolus (AC 36 (5 points): Tube feed q.4 hours or x6 bolus; AC 37 (8 points): Tube feed q.3 hours or x8 bolus; and AC 38 (10 points): Tube feed q.2 hours or x12 bolus).*

(1) Note.

(a) Count each feeding to determine frequency.

(b) Includes nasogastric tube (NG) feedings as well as gastrostomy tube feedings.

(2) Operational description.

(a) NG: Includes time to place the feeding at the bedside, unclamp the tube, assess placement of the tube, administer the tube feeding, flush the tube with water, clamp the tube, record the feeding, and remove the feeding equipment from the area.

+

(b) *Gastrostomy*: Includes time to place the feeding at the bedside, uncoil and unclamp the tube, assess for placement, administer the feeding, flush the tube with water, clamp the tube, replace the tube, and remove the feeding equipment from the area.

+

(c) *Oral gastric tube*: Includes time to place the equipment at the bedside, position the baby, insert the feeding tube, assess the placement of the tube, check the stomach for residual, instill the feeding, remove the feeding tube, bubble the baby, reposition the baby, and remove the equipment as necessary.

e. AC 39 (2 points): Tube feed, continuous; adult, child, or neonate (count each bottle change).

(1) *Note.*

(a) Continuous tube feedings or enteral hyperalimentation includes continuous feedings through NG tubes, oral gastric tubes, oral-jejunostomy tubes, and gastrostomy tubes.

(b) Count 2 points for *each* time the bottle or bag of the feeding is changed or filled.

(2) *Operational description.*

(a) NG or enteral hyperalimentation (continuous) feeding with gastric feeding equipment: Includes time to place the equipment at the bedside, assess for the tube placement, connect the equipment to the feeding tube or NG tube, adjust the flow rate, record the feeding on the I&O record, and remove the equipment as necessary.

+

(b) NG, continuous with infusion pump: Includes time to place the equipment at the bedside, remove and/or position the feeding bottle, assess placement of the tube, connect the bottle to the feeding tube and set up the flow through the flow rate adjuster or the equipment, establish the flow rate, record the feeding on the I&O record, and remove the equipment from the area.

+

(c) *Oral-jejunostomy tube*: Includes time to place the equipment at the bedside, uncoil and unclamp the tube, assess the placement of the tube, administer feeding, flush the tube with water, clamp the tube, replace the tube, and remove the feeding equipment from the area.

3-7. IV therapy

a. General information.

(1) Hyperalimentation is to be included in this section.

(2) The appropriate IV indicator depends upon the frequency of the bottle change.

(3) Count an appropriate number of points for each IV site.

(4) Determine the critical indicator to be used by counting the number of bottle or bag changes required in a 24-hour period of time for that IV site.

(5) *Count Volutrol refills as bottle or bag changes.*

(6) When using a Patient Controlled Analgesia (PCA) machine, count syringe changes as bottle or bag changes.

b. AC 40 (2 points): Start IV.

(1) *Note.* Multiply point value by the number of personnel required to perform the procedure.

(2) *Operational description.* IV infusion—initiating: Includes time to place the equipment at the bedside; apply the tourniquet to the extremity; cleanse the site; perform venipuncture; connect the IV tubing; apply ointment and dressing and tape it securely; time, date, and initial the dressing; calculate and regulate the flow rate; record the infusion on the I&O record; and remove the equipment from the area.

c. AC 41 (4 points): Change bottle or bag b.i.d. or less. Operational description.

(1) IV infusion—changing IV bottle: Includes time to place the equipment at the bedside, remove the used IV container and replace it with a new IV container, calculate and regulate the flow rate, record the change on an I&O record, and remove the equipment from the area.

+

(2) IV infusion—flow rate: Upon arrival at the bedside, includes time to calculate and adjust the flow rate every hour.

+

(3) IV infusion—IV catheter care: Includes time to place the equipment at the bedside, remove the dressing from the IV catheter site, cleanse the skin, apply ointment, replace the dressing; date, time, and initial the dressing; change the IV tubing every day or every other day; and remove the equipment from the area.

d. AC 42 (6 points): Change bottle t.i.d. or q.i.d.

(1) *Note.*

(a) Use this critical indicator for IV lines with a single insertion site that are going at such a rate that the IV bottle or bag needs to be changed 3 to 4 times in a 24-hour period. This includes time to adjust the flow rate every hour, give daily dressing care, and make necessary tubing changes.

(b) Should an IV have more than one bottle of fluid coupled into the same insertion site, count the total number of bottle or bag changes required for that insertion site and use that total frequency to select the correct critical indicator. For example,

should one insertion site have a bottle of fluid that requires changing twice a day and another fluid is hung for a once a day infusion, then that insertion site requires three bottle changes for that day and would be worth 6 points.

(2) *Operational description.*

(a) IV infusion—flow rate: Upon arrival at the bedside, includes time to calculate and adjust the flow rate every hour.

+

(b) IV infusion—changing IV bottle: Includes time to place the equipment at the bedside, remove the used IV container and replace it with a new IV container, calculate and regulate the flow rate, record the infusion on an I&O record, and remove the equipment from the area.

+

(c) IV infusion—IV catheter care: Includes time to place the equipment at the bedside; remove the dressing from the IV catheter site; don gloves if needed; cleanse the skin and apply ointment if used; replace the dressing; date, time, and initial the dressing; change the IV tubing every day or every other day; and remove the equipment from the area.

e. AC 43 (8 points): *Change the bottle five or more times.*

(1) *Note.*

(a) Use this critical indicator for IV lines with a single insertion site that are going at such a rate that the IV bottle or bag needs to be changed five or more times in a 24-hour period. This includes time to adjust the flow rate every hour and give daily dressing care and tubing changes.

(b) Should an IV line have more than one bottle of fluid coupled into the same insertion site, count the total number of bottle or bag changes required for that insertion site and use that total frequency to select the correct critical indicator. For example, should one insertion site have a bottle of fluid that requires changing b.i.d. and another fluid is piggybacked into the line that requires changing t.i.d., then that insertion site requires five bottle changes in a 24-hour period and would receive 8 points.

(2) *Operational description.*

(a) IV infusion—changing IV bottle: Includes time to place the equipment at the bedside, remove the used IV container and replace it with a new IV container, calculate and regulate the flow rate, record the infusion on the I&O record, and remove the equipment from the area.

+

(b) IV infusion—flow rate: Upon arrival, includes time to calculate and adjust the flow rate every hour.

+

(c) IV infusion—catheter care: Includes time to place the equipment at the bedside; remove the dressing from the IV catheter site; cleanse the skin and apply ointment (if used); replace the dressing; date, time, and initial the dressing; change the IV tubing every day or every other day; and remove the equipment from the area.

f. AC 44 (4 points): *Heparin lock or Broviac catheter.*

(1) *Note.* The heparin lock or Broviac catheter critical indicator includes time to administer a heparin flush every 4 hours and to give daily dressing care and tubing changes.

(2) *Operational description.*

(a) Heparin—flush solution: Includes time to place the equipment at the bedside, select the site for injection of heparin flush solution, administer heparin flush solution, and remove the equipment from the area every 4 hours.

+

(b) IV infusion—IV catheter care: Includes time to place the equipment at the bedside; remove the dressing from the IV catheter site; cleanse the skin and apply ointment (if used); replace the dressing; date, time, and initial the dressing; change the IV tubing every day or every other day; and remove the equipment from the area.

g. ACs 45 to 47: *IV medication—piggyback and push* (AC 45 (2 points): *Medication q.8 hours or x3*; AC 46 (3 points): *Medication q.6 hours or x4*; and AC 47 (4 points): *Medication q.4 hours or x6*).

(1) *Note.*

(a) IV medications include IV push medications and IV piggyback medications.

(b) Score the appropriate number of points for each IV medication given.

(c) Each IV medication counts separately. For example, Keflin every 6 hours and gentamycin every 6 hours equal 3 points each for a total of 6 points.

(d) IV heparin to flush heparin locks is not counted with this critical indicator, since this is included in the point value for heparin locks.

(2) *Operational description.*

(a) IV infusion—IV push medication: Includes time to place the equipment at the bedside, select the site for administration of the solution, administer the solution, record the infusion on an I&O record, and remove the equipment from the area.

+

(b) IV infusion—hanging IV piggyback bottle: Includes time to place the equipment at the bedside, remove the used IV container and replace it with a new IV container, calculate and regulate the flow rate, record the infusion on an I&O record, and remove the equipment from the area.

h. AC 48 (2 points): Blood products (each unit).

(1) *Note.*

(a) Two points will be given for *each* unit of blood given any patient regardless of the number of units of blood or blood products administered.

or

(b) A 6-pack of platelets count as 1 unit.

(2) *Operational description.*

(a) IV infusion—blood: Includes time to place the equipment at the bedside, assure correct transfusion, etc., take initial VS, connect to the present IV system, monitor frequently, record the infusion on an I&O record, and remove the equipment from the area. Includes changing IV lines and filters between units.

(b) IV infusion—platelets or plasma: Includes time to place the equipment at the bedside, connect it to the present IV system, monitor it frequently, record the infusion on an I&O record, and remove the used equipment from the area. Includes changing IV lines and filters between units.

i. AC 49 (2 points): Infusion controller or pump.

(1) *Note.*

(a) Count 2 points for each infusion machine required by a patient for a 24-hour period.

(b) Use in conjunction with AC 39 for continuous tube feedings.

(c) Count 2 points for a PCA machine. Also count each syringe change as a bag or bottle change.

(2) *Operational description:* Includes time to place the equipment at the bedside, set up the tubing and adjust the flow rate dial, record the infusion on an I&O record, and check frequently in response to machine warning signals.

3-8. Treatment, Procedures, and Medications

a. General information.

(1) Activities that require less than 15 min in a 24-hour period are not included in the critical indicator list and should not be considered.

(2) Double the points for treatments, procedures, or medications that require two nursing staff members. For example, if two people are required to get a patient out of bed and for the return to bed, grant 4 points; if three people are needed, grant 6 points, etc. This is not to be used for training time such as the orienter-orientee situation.

b. AC 50 (2 points): Insert an NG tube.

(1) *Note.*

(a) Count 2 points for inserting an NG tube.

(b) Multiply the point value by the number of personnel required.

(2) *Operational description.* NG tube—insertion (2 points): Includes time to place the equipment at the bedside, secure a towel around the patient's neck, give the patient a glass of water, instruct the patient

on how to swallow the tube, lubricate the tube, insert the tube, assess the tube for placement, tape it in position, and remove the equipment from the area.

c. AC 51 (2 points): Preoperative preparation, enema or Ace wraps or support hose.

(1) *Note.*

(a) Count 2 points for each: Performing a preoperative shave preparation, giving an enema, or applying Ace wraps or support hose.

(b) Elastic stockings or Ace wraps count 2 points. This includes time to remove and replace them every shift.

(c) Multiply the point value by the number of personnel required.

(2) *Operational description.*

(a) Preoperative preparation (2 points): Includes time to place the equipment at the bedside, prepare the skin for preparation, shave the area specified, and remove the used equipment from the area.

or

(b) Enema—cleansing (2 points): Includes time to place the equipment at the bedside, position the patient, administer the solution, and remove the equipment from the area.

or

(c) Enema—retention (2 points): Includes time to place the equipment at the bedside, position the patient, administer the solution, and remove the equipment from the area.

or

(d) Support hose (2 points): Includes time to place the stockings at the bedside. Expose the lower extremities, and put support stockings on the lower extremities, every shift or x3.

or

(e) Ace bandage (2 points): Includes time to place the equipment at the bedside, wrap the extremity securely with the Ace bandage, and secure it in place with tape or metal hooks, every shift or x3.

d. AC 52 (2 points): Catheterization—Foley or straight.

(1) *Note.*

(a) Foley care is included in AC 53 (e)(1)(c) below), tube care. This critical indicator is for insertion of a Foley.

(b) Multiply the point value by the number of personnel required.

(2) *Operational description.*

(a) Catheterization—Foley (2 points): Includes time to place the equipment at the bedside, prepare the patient, insert the Foley catheter, inflate the balloon, tape the catheter in position, connect it to the urinary drainage bag, and remove the equipment from the room.

or

(b) Catheterization—straight (2 points): Includes time to place the equipment at the bedside, prepare the patient, insert the catheter, empty the bladder, remove the straight catheter, and remove the equipment from the area.

e. AC 53 (2 points): Tube care (exclude tracheostomy).

(1) Note.

(a) Tube care includes time to assess the security and functioning of drainage tubes and/or change dressings for the tubes; such as, chest tubes, Penrose drains, gastrostomy tubes, Jackson-Pratt drains, endotracheal tubes, NG tubes, etc., b.i.d.

(b) Do not use this critical indicator for tracheostomy care. Use AC 91.

(c) Foley care is 2 points for care b.i.d.

(d) Multiply the point value by the number of personnel required.

(2) Operational description.

(a) Tube care (2 points): Includes time to assess the functioning and security of the tube, reposition the tube if necessary, set up the equipment at the bedside, remove the dressing around the tube, cleanse the skin, replace the dressing, tape it securely, and remove the used equipment from the area.

or

(b) Foley catheter care (2 points): Includes time to place the equipment at the bedside, cleanse the area around the catheter, apply ointment (if used), and remove the used equipment from the area, b.i.d.

f. AC 54 (2 points): Simple dressing change x2.

(1) Note.

(a) A simple dressing change is one that can be done in about 5 to 7 minutes. Count 2 points for such a dressing change done b.i.d.

(b) Count 2 points for simple tube dressing x2 in 24 hours, only if in addition to the routine b.i.d. tube care described in AC 53 (e above).

(c) Multiply the point value by the number of personnel required.

(2) Operational description.

(a) Simple dressing change, x2 (2 points): Includes time to place the equipment at the bedside, remove the soiled dressing, cleanse the skin, apply a dressing to the site, and remove the equipment from the area, x2.

or

(b) Reinforcing dressing (2 points): Includes time to place the equipment at the bedside, apply a dressing to the present dressing for reinforcement, and remove the equipment from the area, x2.

g. AC 55 (4 points): Complex dressing change—30 min to complete.

(1) Note. Multiply the point value by the number of staff members required.

(2) Operational description. Includes time to place the equipment at the bedside, remove the soiled dressing, don gloves, administer an irrigation solution if needed, reapply the dressing, and remove the equipment from the area.

h. AC 56 (2 points): Laboratory tests performed or collected on the unit x3.

(1) Note.

(a) All simple tests done on the nursing unit such as sugar and acetone (S&A), occult blood, spin hematocrit, NG aspirate for acidity, specific gravity, glucometer, and heel stick bilirubin count 2 points, but only if done for a total of 3 times in a 24-hour period. For example, an order for urine S&A t.i.d. would count, but b.i.d. would not.

(b) Include those specimens obtained by nursing personnel and processed on the unit or sent to the laboratory. This may be any combination of these tests to total 3 activities in a 24-hour period. If laboratory tests are done and/or specimens collected x6, count 4 points. For example, S&A q.i.d., a sputum culture and a urine culture would count 4 points.

(c) Multiply point value by the number of personnel required.

(2) Operational description.

(a) Specific gravity: Includes time to place the equipment at the bedside, don gloves, collect a sample, measure specific gravity, record the results, and remove the equipment from the area.

+ /or

(b) S&A: Includes time to place the equipment at the bedside, don gloves, collect a sample, measure S&A, record the results, and remove the equipment from the area.

+ /or

(c) Occult blood testing—feces or vomitus or gastrointestinal (GI) drainage: Don gloves, obtain a sample, test it for blood, record the results, and remove the equipment from the area.

+ /or

(d) Hematocrit: After obtaining the blood sample, includes time to don gloves, process, assess, and record the results.

+ /or

(e) Bilirubin testing: Includes time to place the equipment at the bedside, position the infant, don gloves, stick the heel and draw blood into a capillary tube, spin down the serum, place the serum on a slide, and read the slide.

+ /or

(f) Sputum—culture: Includes time to place the equipment at the bedside, position the patient, don gloves, obtain a specimen, apply a label to the specimen, and remove the equipment from the area.

+ /or

(g) Urine specimen: Includes time to place the equipment at the bedside; instruct the patient on how to collect a specimen or don gloves and collect a sample from the Foley catheter, label the specimen, and remove the specimen from the area.

i. AC 57 (2 points): *Perform electrocardiogram (ECG). Operational description.* Includes time to place the equipment at the bedside; connect the leads to the patient and obtain the ECG; record the name, date, and time on the ECG; remove the leads and clean the skin; and remove the equipment from the area, x1.

j. AC 58 (2 points): *Venipuncture, arterial puncture x2.*

(1) Note.

(a) Venipuncture for a blood sample and arterial blood gases that are obtained by an arterial puncture are valued as 2 points for two such punctures.

(b) Includes blood samples obtained from intravascular lines; such as, arterial blood gases obtained from arterial lines.

(c) Each venipuncture counts as one laboratory study, regardless of how many blood tubes are filled.

(d) Multiply the point value by the number of personnel required.

(e) May be any combination of the following to total 2 punctures for 24 hours.

(2) Operational description.

(a) Venipuncture—blood sample: Includes time to place the equipment at the bedside, don gloves, apply a tourniquet to the extremity, cleanse the site, perform a venipuncture, withdraw a blood sample, apply pressure to the puncture site, attach labels on the blood tubes, and remove the equipment from the area.

+ /or

(b) IV or A-line—blood sample: Includes time to place the equipment at the bedside, don gloves, clear the system, obtain a blood sample through a stopcock, flush the system, label samples, and then remove the equipment from the area.

+ /or

(c) Arterial—blood gases: Includes time to place the equipment at the bedside, don gloves, locate the arterial puncture site, perform the puncture, draw blood, place a sample on ice, apply pressure to the puncture site, label the sample, and remove the equipment from the area.

+ /or

(d) Blood culture: Includes time to place the equipment at the bedside, don gloves, apply a tourniquet to the extremity, clean the site, perform veni-

puncture and withdraw a blood sample, apply pressure to the puncture site, apply labels on the blood culture bottle, and remove the equipment from the area.

k. AC 59 (2 points): *Medication—3 to 11 trips or q.3 hours to q.8 hours (includes prn; excludes IV medication).*

(1) Note.

(a) Count the number of trips made into the patient's room or the number of trips by the patient to the nurses' station for medications, not the number of medications administered during each trip. Use this acuity code for patients who receive medications that require a trip to the patient 3 to 11 times in a 24-hour period; that is, medications must be administered every 3 to 8 hours.

(b) This includes prn medications but only if the patient is receiving them. Determine projected needs by past requests and nursing judgment.

(c) Includes all methods of medication administration except IV and NG. Use ACs 45 to 47 for IV medication. Use AC 61 for medications given through an NG or gastric tube.

(d) Patients who receive medication b.i.d. or less (including prns) have acuity points built into the ADL codes.

(2) Operational description.

(a) Oral: Includes time, upon contact with patient, to obtain a glass of water and administer the oral medication.

+ /or

(b) Intramuscular: Includes time to place the equipment, locate the site for injection, administer the medication, and remove the equipment from the area.

+ /or

(c) Topical: Includes time to place the equipment, locate and expose the site for topical application of the medication, apply the medication, and then remove the equipment from the area.

+ /or

(d) Sublingual: Includes time to place the equipment, place the medication under the patient's tongue, and then remove the equipment from the area.

+ /or

(e) Subcutaneous: Includes time to place the equipment, locate the site for injection, administer the medication, and then remove the equipment from the area.

+ /or

(f) Suppository, rectal or vaginal: Includes time to place the equipment, prepare and administer

the suppository, and then remove the equipment from the area.

+ /or

(g) Eye drops: Includes time to position the patient, instill eye drops, and then remove the equipment from the area.

+ /or

(h) Ear drops: Includes time to position the patient, instill ear drops, and then remove the equipment from the area.

+ /or

(i) Nose drops: Includes time to position the patient, instill nose drops, and then remove the equipment from the area.

l. AC 60 (4 points): Medications—12 trips or more—q.2 hours (Includes prn; excludes IV medication).

(1) Note.

(a) Count the number of medication trips made into the patient's room or the number of trips by the patient to the nurses' station for medications, not the number of medications administered during each trip. Use this AC for patients who receive medications that require a trip to the patient 12 times or more in a 24-hour period. Medications must be administered every 2 hours or more frequently.

(b) This includes prn medications, but only if the patient is receiving them. Determine projected needs by past requests and nursing judgement.

(c) Includes all methods of medication administration except IV and NG. Use ACs 45 to 47 for IV medications. Use AC 61 for medications given through an NG or gastric tube.

(2) Operational description.

(a) Oral: Includes time, upon contact with the patient, to obtain a glass of water and administer the oral medication.

+ /or

(b) Intramuscular: Includes time to place the equipment, locate the site for injection, administer the medication, and remove the equipment from the area.

+ /or

(c) Topical: Includes time to place the equipment, locate and expose the site for topical application of medication, apply the medication, and remove the equipment from the area.

+ /or

(d) Sublingual: Includes time to place the equipment, place the medication under the patient's tongue, and remove the equipment from the area.

+ /or

(e) Subcutaneous: Includes time to place the equipment, locate the site for injection, administer the medication, and remove the equipment from the area.

+ /or

(f) Suppository, rectal or vaginal: Includes time to place the equipment, prepare and administer the suppository, and remove the equipment from the area.

+ /or

(g) Eye drops: Includes time to position the patient, instill eye drops, and remove the equipment from the area.

+ /or

(h) Ear drops: Includes time to position the patient, instill ear drops, and remove the equipment from the area.

+ /or

(i) Nose drops: Includes time to position the patient, instill nose drops, and remove the equipment from the area.

m. AC 61 (2 points): Irrigations or instillation x4 or less.

(1) Note.

(a) Irrigations or instillations includes all types of tube irrigations or instillations.

(b) Increase the point value as frequency increases.

(c) If irrigations are continuous, use ACs 41 to 43 to take points for the number of bottle or bag changes.

(2) Operational description.

(a) Irrigation (2 points): Includes time to place irrigation solution at the bedside, unclamp or disconnect the tube, irrigate, reclamp or reconnect the tube, and remove the equipment from the area.

+ /or

(b) Instillation (2 points): Includes time to place medication and/or normal saline at the bedside, unclamp or disconnect the tube, instill the solution, reclamp or reconnect the tubing, and remove the equipment from the area.

n. AC 62 (2 points): Restraints (2 or 4 points) or Posey.

(1) Note.

(a) Includes time to apply and monitor restraints.

(b) Use this critical indicator in conjunction with AC 12, circulation checks q.2 hours or x12.

(2) Operational description. Upon arrival at the bedside, includes time to apply, monitor, and replace if necessary 2-point, 4-point, or Posey torso restraints.

o. AC 63 (2 points): Assist out of bed to a chair or assist out of bed to a stretcher and return x3.

(1) *Note.*

(a) This counts for 2 points if done t.i.d. This only includes the transfer. It does not include assisting with ambulation.

(b) Increase the point value with increased frequency.

(c) Multiply the point value by the number of staff members required.

(2) *Operational description.*

(a) Bed to stretcher: Includes time to place the stretcher at the bedside, transfer the patient to the stretcher, fasten safety straps or adjust the side rail, remove the stretcher from the bedside, and reverse procedures.

+/or

(b) Bed to chair or bedside commode: Includes time to position the chair, wheelchair, or commode at the bedside; assist the patient into a sitting position; bring the patient into an upright standing position; assist the patient into a chair, and reverse the process.

p. AC 64 (2 points): Assist out of bed, walk and return x1.

(1) *Note.*

(a) Count 2 points each time a patient is assisted by a staff member.

(b) Multiply the point value by the number of staff members required.

(2) *Operational description.* Includes time to assist the patient into a sitting position on the side of the bed, bring the patient into an upright standing position, assist with ambulation, and assist the patient back into bed, x1.

q. AC 65 (2 points): Infant circumcision or phototherapy.

(1) *Note.* Multiply the point value by the number of staff members required.

(2) *Operational description.*

(a) Circumcision (2 points): Includes time to place the equipment in the treatment room, secure the baby in restraints, assist the physician with the procedure, apply a dressing to the surgical site, remove restraints, and return the baby to the newborn nursery.

or

(b) Phototherapy treatment (2 points): Includes time to place the equipment at the bedside, expose the baby, apply and maintain eye pads, position the phototherapy lights, and assess the infant frequently.

r. AC 66 (2 points): Isolation—mask, gown, and gloves x8.

(1) *Note.* This critical indicator is to be used for a patient requiring a mask, gown, and gloves, and not just wound isolation requiring only gloves.

(2) *Operational description.* Upon arrival at an isolation area, wash your hands and put on an isolation gown, mask, and gloves, and on departing the isolation area, remove the isolation gown, mask, and gloves, and wash your hands, x8.

s. AC 67 (4 points): Chest tube insertion or lumbar puncture.

(1) *Note.* Multiply the point value by the number of staff members required.

(2) *Operational description.*

(a) Chest tube insertion (4 points): Includes time to place all equipment at the bedside, assist the physician with insertion of the chest tube, prepare water-sealed drainage bottles, tape all connections and drainage bottles, and remove the equipment from the area.

or

(b) Lumbar puncture (4 points): Includes time to place the equipment at the bedside, assist the physician with the procedure, and remove the equipment from the area.

t. AC 68 (4 points): Thoracentesis or paracentesis.

(1) *Note.* Multiply the point value by the number of staff members required.

(2) *Operational description.*

(a) Thoracentesis (4 points): Includes time to place the equipment at the bedside, obtain VS, assist the physician, support the patient during the procedure, repeat VS, measure and record aspiration fluids, and remove the equipment from the area.

or

(b) Paracentesis (4 points): Includes time to place the equipment at the bedside, measure VS, prepare the patient and tray for the procedure, assist the physician, support the patient during the procedure, repeat VS, and remove the equipment from the area.

u. AC 69 (4 points): Range of motion exercises x3

(1) *Note.*

(a) Must be done by nursing personnel.

(b) Count 4 points for every 3 times this is done.

(2) *Operational description.*

(a) Range of motion (ROM) exercise—active (4 points): Includes time to supervise the patient actively performing the prescribed exercise program.

or

(b) ROM exercise—passive (4 points): Includes time to manually move the patient's extremities through the prescribed exercise program.

v. AC 70 (12 points): New admission—assessment and orientation.

(1) *Note.*

(a) This critical indicator is used for all new

admissions and includes time for admission assessment and orientation activities.

(b) This critical indicator can be selected within 24 hours of admission; therefore, patients admitted on the evening shift after that day's classification can be classified the next day using AC 70.

(2) *Operational description.* Includes time to obtain the nursing data base, assess the physical and nursing history, orient the patient to the unit, instruct the patient about hospital regulations, and explain about ward policies.

w. AC 71 (4 points): *Transfer—in-house assessment and orientation.*

(1) *Note.*

(a) This factor is to be used for any patient transferred from one unit to another.

(b) Transfer points go to the receiving unit only.

(2) *Operational description.* Includes time for reviewing the patient's record, assessing the patient, and orienting the patient to the new unit and its personnel.

x. ACs 72 to 74: *Accompany patient off unit (AC 72 (2 points): Accompany patient off unit 15 min; AC 73 (4 points): Accompany patient off unit 30 min; and AC 74 (6 points): Accompany patient off unit 45 min).*

(1) *Note.* Count 2 points for every 15 min a nursing staff member is off the nursing unit with a patient.

(2) *Operational description.* Anytime a nursing staff member is required to accompany a patient off the nursing unit; such as, accompanying a patient to the laboratory.

y. ACs 75 to 77: *Other activities (AC 75 (2 points): Other activities requiring 15 min; AC 76 (4 points): Other activities requiring 30 min; and AC 77 (6 points): Other activities requiring 45 min).*

(1) *Note.*

(a) Multiply the point value by the number of staff members required.

(b) These activities must be documented in the patient's medical record.

(2) *Operational description.* Points may be given for direct care activities that require 15, 30, or 45 min and are not found on the critical indicator list.

z. AC 78 (8 points): *Each hour requiring continuous staff attendance.*

(1) *Note.*

(a) Count 8 points for each hour of continuous care or attendance required up to 4 hours. After that, use critical indicator AC 98 or AC 99 (see para 3-12).

(b) Multiply by the number of staff members required.

(2) *Operational description.* Assignment of one member of the nursing team to observe and provide direct nursing care to the patient during a specific

activity. Examples of when this indicator should be used include—

(a) Cardiac arrest or the administration of cardiopulmonary resuscitation (CPR).

(b) An unstable patient awaiting transfer to an ICU.

(c) A severely agitated patient requiring staff attendance while sedation takes effect.

(d) Staff attendance for transport.

3-9. Respiratory Therapy

a. AC 79 (2 points): *Oxygen therapy or oxyhood.*

(1) *Note.*

(a) Count 2 points for oxygen therapy regardless of how the oxygen is administered, such as by nasal prongs, mask, nasal cannula, collar, face tent, or oxyhood.

(b) This critical indicator is not increased by the number of types of oxygen administration. If oxygen is administered by nasal prongs and a face mask both, it is still only worth 2 points.

(2) *Operational description.*

(a) Oxygen administration—prongs: Includes time to place the equipment at the bedside, fit the nasal prongs, adjust the headband, regulate the oxygen rate, and evaluate the patient's adjustment to the oxygen and equipment.

+

(b) Oxygen administration—mask: Includes time to place the equipment at the bedside, turn on the oxygen, fit the mask over the mouth and nose, adjust the headband, evaluate fit and the patient's adjustment to the equipment, and regulate the oxygen flow rate.

+

(c) Oxygen administration—nasal: Includes time to place the equipment at the bedside, turn on the oxygen, lubricate and insert the nasal catheter, secure it with tape, evaluate the patient response, and regulate the oxygen flow rate.

+

(d) Oxygen administration—mist with collar or face tent: Includes time to place the equipment at the bedside, turn on the oxygen, position the equipment, secure the equipment, evaluate the patient response, and regulate the oxygen flow rate.

+

(e) Oxyhood—application or replacement: Includes time to place the oxyhood over the infant's head, position the oxygen sensor, assess the oxygen concentration using the oxygen analyzer, adjust the oxygen flow if indicated, evaluate patient response, and record the results.

b. AC 80 (2 points): *Incentive spirometer or cough and deep breathe q.4 hours or x6.*

(1) *Note.* Multiply point value with increased frequency. For example, an order of "Every 1 hour while awake" would approximate 12 treatments or double the point value to equal 4 points.

(2) *Operational description.*

(a) Incentive spirometer (2 points): Includes time to place a spirometer at the bedside, assist the patient during the procedure, determine the proper usage of the spirometer, and locate the equipment at the bedside for the next treatment.

or

(b) Blow bottles (2 points): Includes time to place the equipment at the bedside, assist with the placement of bottles, have the patient perform the procedure, then locate the equipment at the bedside for the next treatment.

or

(c) Cough and deep breathe (2 points): Upon arrival at the bedside, have the patient cough and deep breathe. If the cough is productive, includes time to observe and dispose of the sputum.

c. AC 81 to 83: *Intermittent positive pressure breathing (IPPB) or maximist (AC 81 (2 points): IPPB or maximist b.i.d. or x2; AC 82 (4 points): IPPB or maximist q.6 hours or x4; and AC 83 (6 points): IPPB or maximist q.4 hours or x6).*

(1) *Note.*

(a) IPPB or maximist or nebulizer must be administered by nursing personnel to count.

(b) Multiply point value with increased frequency.

(2) *Operational description.*

(a) IPPB treatment: Upon arrival at the bedside, includes time to prepare the nebulizer, position the patient, assure the proper breathing technique, and administer the treatment.

or

(b) Maximist treatment: Upon arrival at the bedside, includes time to prepare the nebulizer, position the patient, assure the proper breathing technique, and administer the treatment.

d. AC 84 (8 points): *Croup tent or mist tent.*

(1) *Note.* This includes time to check the tent every 4 hours.

(2) *Operational description.* Includes time to place the equipment at the bedside, position the equipment over the bed, fill the vaporizer with solution, place the thermometer, assess the status of the patient's adjustment to the croup tent, and assess the temperature inside the croup tent, q.4 hours.

e. ACs 85 to 87: *Chest pulmonary therapy (AC 85 (2 points): Chest pulmonary therapy b.i.d. x2; AC 86 (4 points): Chest pulmonary therapy q.6 hours or x4;*

and AC 87 (6 points): Chest pulmonary therapy q.4 hours or x6).

(1) *Note.* Multiply the point value as frequency increases.

(2) *Operational description—frappage with postural drainage.* Upon arrival at the bedside, includes time to position the patient and initiate treatment by auscultation of the lung fields, perform percussion to each involved segment followed by vibration, and evaluate patient response.

f. ACs 88 and 89: *Suctioning (AC 88 (2 points): Suctioning q.4 hours or x6 and AC 89 (4 points): Suctioning q.2 hours or x12).*

(1) *Note.*

(a) Suctioning includes oral, tracheostomy, nasotracheal, or endotracheal.

(b) Multiply the point value times the number of nursing staff personnel required.

(c) Increase the point value as the frequency increases.

(2) *Operational description.*

(a) Suctioning—oral: Includes time to place the equipment or set up the equipment at the bedside, suction the oral cavity with a suction catheter or oral suction tip, flush the catheter before and after each aspiration, replace the used equipment, and remove the used equipment from the area. (Includes oral bulb syringe suctioning for infants.)

+

(b) Suctioning—tracheostomy: Includes time to set up the equipment, put on sterile gloves; suction and flush the catheter before and after each aspiration, replace the used equipment, and remove the used equipment from the area.

+

(c) Suctioning—nasotracheal: Includes time to set up the equipment at the bedside, put on sterile gloves, pass the nasal catheter and suction, flush the catheter before and after each aspiration, replace the used equipment, and remove the used equipment from the area.

+

(d) Suctioning—endotracheal: Includes time to set up sterile equipment at the bedside, put on sterile gloves, suction through the endotracheal tube, flush the catheter before and after each use, have the patient bag breathe between each aspiration, remove gloves, replace the used equipment, and remove the used equipment from the area.

g. AC 90 (10 points): *Ventilator. Operational description.*

(1) Oxygen administration—ventilator: Upon arrival at the bedside, includes time to assess and/or regulate the oxygen and ventilator pressures, assess all tubing for patency and collection of fluids within

tubing, assess the fluid level in the water vapor container, and assess the proper position of alarms, q.1 hour.

+

(2) Responding to ventilator alarm: Upon arrival at the bedside, includes time to assess the situation and reset the alarm.

h. AC 91 (4 points): Tracheostomy care x3.

(1) *Note.*

(a) Increase the point value as the frequency increases.

(b) Multiply the point value by the number of nursing staff members required.

(2) *Operational description.*

(a) Tracheostomy—cleaning cannula: Includes time to place the equipment at the bedside; complete tracheostomy suction; remove, clean, and replace the inner tube; and remove the soiled equipment and replace it with clean equipment.

+

(b) Tracheostomy—dressing change: Includes time to place the equipment at the bedside, remove the soiled dressing, cleanse the skin, replace the dry dressing, change the tracheostomy ties as indicated, and remove soiled equipment from the area.

3-10. Teaching

a. General Information. Time allowance for routine assessment observation and teaching has been incorporated in times for each critical indicator.

b. AC 92 (2 points): Group teaching. Operational description—special structured teaching-group: Each patient attending group instruction will receive 2 points for each hour of structured teaching.

c. AC 93 (4 points): Individual teaching—30 min.

(1) *Note.* This allows for 30 min of direct individual patient and family instruction. Multiply the point value in 30 min increments; that is, 1 hour of direct patient and/or family individual instruction is equal to 8 points, etc.

(2) *Operational description.*

(a) Pre-operation teaching: Includes time to provide individual instruction to the patient and family and to answer questions.

+

(b) Teaching the patient and family on diabetic care, newborn care, cardiac care, colostomy care, post partum care, medications, discharge instructions, etc.: Includes time to provide individual instruction regarding the nature and scope of a disease process or a recent event (post-delivery); special care requirements, limitations, and/or restrictions related to a disease or illness; and to answer questions.

3-11. Emotional Support

a. General information.

(1) Time allowance for routine assessment, observation, and interaction has been incorporated in times for each individual critical indicator.

(2) Select these critical indicators only if emotional support is required in excess of 30 min in 24 hours. This critical indicator is to discriminate between the routine emotional support given all patients and the patient who needs extra attention.

(3) This emotional support *must* be documented on the patient care plan, the Therapeutic Documentation Care Plan (Non-Medication) (DA Form 4677), and/or nursing notes.

(4) Increase the point value as needed in 30 min increments. Maximum point allowance for this category of critical indicators is 10.

b. AC 94 (4 points): Patient and family support (anxiety, denial, loneliness, etc.). Operational description. Includes extra time needed to individually interact with a patient or family member and to provide emotional support.

c. AC 95 (4 points): Lifestyle modification (prosthesis, behavior, image, etc.). Operational description. Includes time to provide individual support regarding limitations and restrictions of a new prosthesis, the necessary alteration of lifestyle, and coping with a body image change or illness.

d. AC 96 (6 points): Sensory deprivation (retarded, deaf blind, etc.). Operational description. Includes the extra time that must be taken for interaction with certain patients; such as, those who are retarded, deaf or hearing impaired, blind, foreign speaking, mute or unable to speak, bilaterally patched, mentally confused.

e. AC 97 (10 points): Maximum points for emotional support. Note. Points for emotional support cannot exceed 10. Use this critical indicator to indicate a patient who requires maximum emotional support.

3-12. Continuous

a. General information. The continuous critical indicators are to be used for patients who require 1-to-1 or greater care.

b. AC 98 (96 points): Patients requiring 1-to-1 coverage (all shifts).

(1) *Note.* Use this critical indicator for patients that require one staff member continuously each shift.

(2) *Operational description.*

(a) Includes time for one RN to render *all* care to a specific patient requiring continual 1-to-1 observation (monitoring) to include managing the IV, administering medications and treatments, performing assessments, etc. (96 points).

or

(b) Includes time for one paraprofessional to be assigned to a patient requiring continuous observation (for safety reasons, etc.) and care. This individual will provide care within their scope of practice in the areas of VS, monitoring, ADL, treatments, and feeding. Do not count additional critical indicators for these activities. Additional critical indicators may be taken for activities of the professional nurse

Section III. PSYCHIATRIC CRITICAL INDICATORS

3-13. Vital signs

a. ACs 100 to 104: VS (temperature, pulse, respiration and blood pressure) (AC 100 (1 point): vs q.i.d. or less; AC 101 (2 points): vs q.4 hours or x6; AC 102 (3 points): vs q.3 hours or x8; AC 103 (4 points): vs q.2 hours or x12; and AC 104 (8 points): vs q.1 hours or x24).

(1) Note.

(a) VS q.i.d. or less is the only critical indicator with a 1 point value.

(b) VS q.4 hours or x6 in a 24-hour period is equal to 2 points. VS q.2 hours or x12 is twice as often, therefore equal to twice as many points; that is, 4 points; and VS q.1 hour or x24 is equal to 8 points. VS taken every 30 min for 24 hours would be valued at 16 points.

(c) Select the point allowance to fit the VS frequency. Add points when using an alternate method of taking pulses or temperatures *if taken q.i.d. or more often*. For example, a patient may need to have VS q.4 hours to include both a rectal temperature and apical pulse. In this case, count 2 points for VS q.4 hours, 2 points for the rectal temperature, and 2 points for the apical pulse for a total of 6 points for this critical indicator for the 24-hour period.

VS q.4 hours	= 2 points
Rectal temperature	= 2 points
Apical pulse	= 2 points
Total	= 6 points

(2) Operational description:

(a) Oral temperature, pulse, and respirations: Includes time to place equipment at the bedside, position the temperature probe or thermometer, place the fingers over the radial artery pulse and count the rate, count the respiratory rate while the fingers are in place over the radial artery pulse, remove the fingers from the radial artery, record the results of measurements, and then remove the equipment from the area.

+

(b) Blood pressure, manual: Includes time to place the equipment, place the cuff around the extremity, position the stethoscope, measure blood

pressure, remove the cuff, record the results, and remove the equipment from the area.

c. AC 99 (146 points): Patients requiring greater than 1-to-1 coverage (all shifts).

(1) Note. Use when more than one staff member is required to give care to one patient on each shift.

(2) Operational description. One professional nurse cannot provide all patient care for a critically ill patient. A second staff member is required to frequently assist in patient care.

+

(c) Blood pressure, arteriosonde: Includes time to apply electrode gel to the cuff, position the cuff around the extremity, measure blood pressure, remove the cuff, cleanse the gel from the extremity, store equipment at the bedside, and record the results.

b. AC 105 (2 points): Tilt test q.4 hours or more.

(1) Note.

(a) Do not increase allowance for increased frequency.

(b) This allows for lying, sitting, and standing value. Use this critical indicator even if only the lying and sitting tests are done.

(2) Operational description:

(a) Blood pressure, lying: Includes time to place equipment at bedside, place the cuff around the extremity, position the stethoscope, measure the blood pressure, remove the cuff, record the results, and remove the equipment from the area.

+

(b) Blood pressure, sitting: Includes time to place equipment at bedside, place the cuff around the extremity, position the stethoscope, measure the blood pressure, remove the cuff, record the results, and remove the equipment from the area.

+

(c) Blood pressure, standing: Includes time to place equipment at bedside, place the cuff around the extremity, position the stethoscope, measure the blood pressure, remove the cuff, record the results, and remove the equipment from the area.

+

(d) Assist with position change: Includes time to assist the patient from the lying position to a sitting position and to a standing position.

3-14. Monitoring

a. AC 106 (2 points): Intake and output q.8 hours.

(1) *Note.*

(a) Increase the point value for increased frequency. I&O must be done at least every 8 hours or once a shift in order to use this indicator.

(b) I&O includes time to measure all forms of intake and output.

(c) Patients on just intake or just output will not receive points.

(2) *Operational description.*

(a) Measuring and recording intake: Includes time to place a calibrated cylinder or container at the bedside, measure or calculate the fluids, record the amount on the I&O record, and remove the equipment from the area.

+

(b) Measuring and recording output—urine: Includes time to place a calibrated cylinder at the bedside, measure or calculate the volume, record the amount on the I&O record, and remove the equipment from the area.

+

(c) Measuring and recording output—liquid feces: Includes time to remove the bedpan from patient's bedside, measure the feces in a calibrated cylinder, and record the amount on the I&O record.

+

(d) Measuring and recording output—vomit: Includes time to remove the container from the patient's bedside, measure the vomitus in a calibrated cylinder, and record the amount on the I&O record.

b. AC 107 (2 points): *Circulation checks q.2 hours or x12.*

(1) *Note.*

(a) Circulation checks must be done at least every 2 hours before they count.

(b) If this activity is ordered for patients in restraints, do not use this code unless someone other than the personnel assigned the 1:1 coverage conducts the checks.

(2) *Operational description.* Includes time to arrive at the bedside; check the extremity for swelling, numbness, and tingling; evaluate the temperature and color of the skin; and assess the patient's ability to move the extremity.

c. AC 108 (8 points): *Patient checks q.30 min per 8-hour period.*

(1) *Note:* Formal monitoring of a patient for documentation of sleep patterns is one example of this action. But this critical indicator is *not* to be used if a nursing staff member is simply making night rounds on all patients every 30 min and there is no corresponding physician or nursing order to assess q.30 min. Award 8 points for each 8-hour period a patient requires 30 min checks for whatever purpose. This

usually includes interaction to determine orientation and emotional and cognitive status.

(2) *Operational description.* Includes time for *any condition* that requires a nursing assessment every 30 min. Assessment must be documented every 30 min.

d. AC 109 (16 points): *Patient checks q.15 min per 8-hour period.*

(1) *Note:* An example of this activity may be assessments during the time a patient is in the seclusion room. Assessment must be documented every 15 min.

(2) *Operational description.* Includes time to approach the patient, perform the assessment, and record the observations every 15 min for an 8-hour timeframe.

e. AC 110 (3 points): *Neuro checks q.4 hours or x6.*

(1) *Note:*

(a) Neuro checks include checking pupils, mental alertness, orientation, and sensory discrimination, and motor and sensory testing.

(b) Neuro checks must be done at least every 4 hours (2 times in a shift) or 6 times in a 24-hour period in order to count. Increase the point value for corresponding increases in frequencies; for example, neuro checks every hour would equal 12 points.

(2) *Operational description.*

(a) Pupil reflexes: Includes time to place equipment at the bedside, adjust the room lighting, assess pupillary reflexes with a flashlight, and remove equipment from the area.

+

(b) Mental alertness: Includes time to arrive at the bedside; make inquiries within the framework of interviewing that will give information about the patient's level of consciousness, memory, intellectual performance, and judgement; and record the results.

+

(c) Orientation: Includes time to arrive at the bedside; make inquiries within the framework that will give information about patient's orientation as to time, place, and person; and record the results.

+

(d) Sensory discrimination: Includes time to screen for pain, vibration, light touch, and stereognosis intact; and record the results.

+

(e) Motor or sensory testing: Includes time to arrive at the bedside and assess extremities for sensation awareness and muscle strength.

3-15. Activities of Daily Living

a. *General information.*

(1) All patients must be classified in this critical indicator group.

(2) Points may *not* be doubled.

b. AC 111 (2 points): *Care—self or minimal (adult or child 6 years old or older).*

(1) *Note.*

(a) This category includes patients that are able to sign off the unit unaccompanied and patients that are allowed to sign off the unit in the company of another patient.

(b) The patient is able to perform ADL, but requires nursing supervision of those activities.

(c) This indicator includes time for medications administered b.i.d. or less by any route except IV and includes prn.

(2) *Operational description.*

(a) Bathing: Includes time to place equipment at the bedside, allow the patient to bathe and change pajamas, and remove equipment from area. (Provides general supervision of the patient's ability to perform personal hygiene activities, to include personal grooming and attire.)

+

(b) Serving meal tray: Includes time to place the tray at the bedside. Allows for supervision and monitoring of the patient's nutritional intake and social behavior at meals.

+

(c) Unoccupied bed: Includes time to place linen at the bedside, remove soiled linen, place the bottom sheet on the mattress, then the top sheet, change pillowcases, and remove soiled linen from the area. (Provides general supervision and monitoring of the patient's ability to maintain his or her living area (bed, bedside stand, locker, bathroom, etc.) in accordance with unit policies.)

+

(d) Nursing assessment: Includes time spent at the patient's bedside assessing the patient's condition and problems, formulating nursing diagnoses and interventions, and evaluating effectiveness of interventions.

+

(e) Administering medication b.i.d. or less: Applies to all routes except IV and includes prn.

c. AC 112 (6 points): *Care—assisted (adult or child 6 years old or older able to position self).*

(1) *Note.*

(a) Assisted care (adult or child 6 years old or more) includes time for administration of non-IV medications and prn medications b.i.d. or less.

(b) This critical indicator includes patients who—

1 Are limited to the unit or may leave the unit only if accompanied by a staff member.

2 Are able to perform ADL *only* with continual encouragement and direct nursing supervision of those activities.

3 Require encouragement and supervision to perform oral hygiene, shaving, and grooming activities.

4 Require direct supervision during patient use of hazardous items.

5 Require supervision in the selection, wear, and maintenance of clothing.

(2) *Operational description.*

(a) Bathing—assistance with back and legs: Includes time to place equipment at the bedside, remove pajamas, allow for patient bathing, change the water, bathe the back and lower extremities, replace the pajamas, and remove equipment from the area.

+

(b) Sitting shower or shower with assistance: Includes time to arrive in the shower room, and assist the patient in undressing, into the shower, with bath and hair shampoo, in redressing, and back into bed. (Remains with the patient.)

+

(c) Tub bath: Includes time to arrive in the bathroom, assist the patient in undressing, into the bathtub, with bath, in redressing, and back into the bed. (Remains with the patient.)

+

(d) A.M. care: Includes time to place the equipment at the bedside, assist the patient with bathing his or her face and hands and in brushing teeth, and remove the equipment from the area.

+

(e) A.M. care, partial: Includes time to place the equipment at the bedside, prepare bath water and put toothpaste on the toothbrush, and remove the equipment from the area.

+

(f) PM care: Includes time to place the equipment at the bedside, assist the patient with bathing his or her face and hands and in brushing teeth, give a back rub, tighten and straighten bed linens, and remove the equipment from the area.

+

(g) Serving meal tray, preparation required: Includes time to place the tray at the bedside, prepare food and utensils, and prepare a towel or napkin as a bib.

+

(h) Ambulatory weight: Includes time to place the equipment at the bedside, balance scales, assist the patient onto the scales, read and record weight, assist the patient off the scales, and remove the equipment from the area.

+

(i) Unoccupied bed: Includes time to place linen at the bedside, remove soiled linen, place the bottom sheet on the mattress, add the top sheet, change pillowcases, and remove soiled linen from the area.

+

(j) Answering patient's questions: Includes time spent answering patient's questions or in response to the patient's call system.

+

(k) Administering medication b.i.d. or less: Applies to all routes of administration except IV and includes prn.

+

(l) Nursing assessment: Includes time spent at the patient's bedside assessing patient condition and problems, formulating nursing diagnoses and interventions, and evaluating effectiveness of interventions.

d. AC 113 (14 points): Care—complete (adult or child 6 years or older who needs assistance with positioning).

(1) Note.

(a) This indicator includes patients who are unable to participate in activities of daily living and require total nursing care to provide those activities. The psychiatric patient whose condition requires this level of direct nursing care of ADL would most likely require continuous monitoring (AC 145). If so, do not count both AC 113 and AC 145. Use AC 113 for a patient who requires a bed bath, a.m. and p.m. oral care, bedpan or urinal, etc., but who does not require continuous monitoring.

(b) Some psychiatric patients in this category will be ambulatory, but they are unable to satisfactorily perform these ADL; therefore, the staff must perform them.

(c) Includes time for administration of non-IV medication and prn medications b.i.d. or less.

(2) Operational description.

(a) Bathing, complete: Includes time to place the equipment at the bedside; remove pajamas; bathe the face, chest, abdomen, and extremities; change water; bathe the back, buttocks, and perineal area; replace pajamas; and remove the equipment from the area.

+

(b) A.M. care: Includes time to place the equipment at bedside; assist the patient with bathing his or her face and hands, and brushing teeth; and remove the equipment from the area.

+

(c) P.M. care: Includes time to place the equipment at bedside; assist the patient with bathing his or her face and hands, and brushing teeth; rub the back; tighten and straighten bed linens; and remove the equipment from the area.

+

(d) Weight: Includes time to place the equipment at the bedside, balance the scales, assist the patient onto the scales, read and record weight, assist the patient in getting off the scales, and remove the equipment from the area.

+

(e) Giving a bedpan: Includes time to place a bedpan at the bedside, place the patient onto the bedpan, provide toilet tissue, remove the patient from the bedpan, cover the bedpan, and remove the bedpan from the area.

+

(f) Giving a urinal: Includes time to place a urinal at the patient's bedside, remove the cover, adjust the patient's pajamas for placement of the urinal, remove the urinal from the patient, replace the cover, and remove the urinal from the area.

+

(g) Occupied bed: Includes time to place linen at the bedside, turn the patient on his or her side, roll the linen to one side of the bed and replace it with clean linen, turn the patient to the freshly made side of the bed, remove soiled linen and complete the bed making, and remove the soiled linen from the area.

+

(h) Serving meal tray, preparation required: Includes time to place the tray at bedside, prepare the food and utensils, and prepare a towel or napkin as a bib.

+

(i) Answering the patient's questions: Includes time spent in answering the patient's questions or in response to the patient's call system.

+

(j) Nursing assessment: Includes time spent at the patient's bedside assessing patient condition and problems, formulating nursing diagnoses and inter-

ventions, and evaluating effectiveness of interventions.

+

(k) Administering medication b.i.d. or less: Applies to all routes of administration except IV and includes prn.

3-16. Feeding

a. AC 114 (6 points): *Spoon feed 3 times per day or 1:1 at meals.*

(1) *Note.* Use this code for all patients requiring 1:1 nursing supervision during meals. Do not use it if AC 145 is used. When other nursing care is provided in association with this activity, use other ACs as appropriate.

(2) *Operational description.* Spoonfeeding: Place the meal tray at bedside, place a towel or napkin as a bib, prepare the food, feed the patient slowly, and remove the tray from the area.

b. AC 115 (5 points): *Tube feeding bolus q.4 hours or x6.*

(1) *Note.*

(a) Count each feeding to determine frequency.

(b) Includes NG and gastrostomy feedings.

(2) *Operational description.* Includes time to place the feeding at the bedside, unclamp the tube, assess the placement of the tube, administer the tube feeding, flush the tube with water, clamp the tube, record the feeding, and remove the feeding equipment from the area.

c. AC 116 (2 points): *Escort patients to dining hall.*

(1) *Note.*

(a) Award 2 acuity points to each patient requiring escort to and supervision at the dining facility.

(b) This activity requires a 1-staff to 4-patient ratio.

(2) *Operational description.* Includes time for one staff member to accompany a group of up to four patients to the dining facility, remain with them for 30 min, then return to the unit.

3-17. Treatments, Procedures, and Medications

a. *General information.*

(1) Activities that require less than 15 min in a 24-hour period are not included in the critical indicators and should not be counted.

(2) Double the points for treatments, procedures, or medications that require two nursing staff members.

b. AC 117 (2 points): *Start IV, apply Ace wraps, insert NG tube or urinary catheter, tube care, preoperation preparation, or enema.*

(1) *Note.*

(a) Count 2 points for each activity listed below.

(b) Multiply the point value by the number of personnel required.

(2) *Operational description.*

(a) IV infusion—initiating (2 points): Includes time to place the equipment at the bedside; apply the tourniquet to the extremity; cleanse the site; perform venipuncture; connect the IV tubing; apply ointment and dressing and tape it securely; time, date, and initial the dressing; calculate and regulate the flow rate; record the infusion on the I&O record; and remove the equipment from the area.

or

(b) Support hose (2 points): Includes time to place the stockings at the bedside, expose the lower extremities, and put the support stockings on the lower extremities, every shift or x3.

or

(c) Ace bandages (2 points): Includes time to place the equipment at the bedside, wrap the extremity securely with the Ace bandage, and secure it in place with tape or metal hooks, every shift or x3.

or

(d) Catheterization—Foley (2 points): Includes time to place the equipment at the bedside, prepare the patient, insert the Foley catheter, inflate the balloon, tape the catheter in position, connect it to the urinary drainage bag, and remove the used equipment from the room.

or

(e) Catheterization—straight (2 points): Includes time to place the equipment at the bedside, prepare the patient, insert the catheter, empty the bladder, remove the straight catheter, and remove the equipment from the area.

or

(f) NG tube—insertion (2 points): Includes time to place the equipment at the bedside, secure a towel around the patient's neck, give the patient a glass of water, instruct the patient on how to swallow the tube, lubricate the tube, insert the tube, assess the tube for placement, tape it in position, and remove the equipment from the area.

or

(g) Preoperative preparation (2 points): Includes time to place the equipment at the bedside, prepare the skin for preparation, shave the specified area, and remove the equipment from the room.

or

(h) Enema—cleansing (2 points): Includes time to place the equipment at the bedside, position the patient, administer the solution, and remove the equipment from the area.

or

(i) Enema—retention (2 points): Includes time to place the equipment at the bedside, position the patient, administer the solution, and remove the equipment from the area.

or

(j) Foley catheter care (2 points): Includes time to place the equipment at the bedside, cleanse the area around the catheter, apply an ointment (if used), and remove the equipment from area, b.i.d.

or

(k) Tube care (2 points): Includes time to assess the security and functioning of drainage tubes and/or change dressings for tubes; such as, chest tubes, Penrose drains, gastrostomy tubes, Jackson-Pratt drains, endotracheal tubes, NG tubes, etc., b.i.d.

c. AC 118 (2 points): Simple dressing change x2.

(1) Note.

(a) A simple dressing change is one that can be done in about 5 to 7 minutes. Count 2 points for such a dressing change done b.i.d.

(b) Multiply the point value by the number of personnel required.

(2) Operational description.

(a) Simple dressing change, x2. Includes time to place the equipment at the bedside, remove the soiled dressing, cleanse the skin, apply a dressing to the site, and remove the equipment from the area, x2.

+

(b) Reinforcing dressing: Includes time to place the equipment at the bedside, apply a dressing to the present dressing for reinforcement, and remove the equipment from the area, x2.

d. AC 119 (4 points): Complex dressing—requires 30 min to complete.

(1) Note. Multiply the point value by the number of staff members required.

(2) Operational description. Includes time to place the equipment at the bedside, remove the soiled dressing, don gloves, administer an irrigation solution if needed, reapply the dressing, and remove the equipment from the area.

e. AC 120 (2 points): Laboratory tests performed or collected on the unit x3.

(1) Note.

(a) All simple tests done on the nursing unit such as S&A, occult blood, spin hematocrit, gastric acidity, specific gravity, glucometer, and heel stick

bilirubin count 2 points, but only if done for a total of 3 times in a 24-hour period. For example, an order for urine S&A t.i.d. would count, but b.i.d. would not.

(b) Include those specimens obtained by nursing personnel and processed on the unit or sent to the laboratory. This may be any combination of these tests to total 3 activities in a 24-hour period.

(c) Multiply point value by the number of personnel required.

(2) Operational description.

(a) Specific gravity: Includes time to place the equipment at the bedside, don gloves, collect a sample, measure specific gravity, record the results, and remove the equipment from the area.

+ /or

(b) S&A: Includes time to place the equipment at the bedside, don gloves, collect a sample, measure S&A, record the results, and remove the equipment from the area.

+ /or

(c) Occult blood testing—feces or vomitus or GI drainage: Don gloves, obtain a sample, test it for blood, record the results, and remove equipment from the area.

+ /or

(d) Hematocrit: After obtaining the blood sample, includes time to don gloves, process, assess, and record the results.

+ /or

(e) Bilirubin testing: Includes time to place the equipment at the bedside, don gloves, position the infant, stick the heel and draw blood into a capillary tube, spin down the serum, place the serum on a slide, and read the slide.

+ /or

(f) Sputum—culture: Includes time to place the equipment at the bedside, position the patient, don gloves, obtain a specimen, apply a label to the specimen, and remove the equipment from the area.

+ /or

(g) Urine specimen: Includes time to place the equipment at the bedside, instruct the patient on how to collect a specimen or don gloves and collect a sample from the Foley catheter, label the specimen, and remove the specimen from the area.

f. AC 121 (2 points): Perform ECG. Operational description. Includes time to place the equipment at the bedside; connect the leads to the patient and obtain the ECG; record the name, date, and time on the ECG; remove the leads and clean the skin; and remove the equipment from the area, x1.

g. AC 122 (2 points): *Venipuncture, arterial puncture x2.*

(1) Note.

(a) Venipuncture for a blood sample and arterial blood gases that are obtained by an arterial puncture are valued as 2 points for every 2 punctures.

(b) Includes blood samples obtained from intravascular lines; such as, arterial blood gases obtained from A-lines.

(c) Each venipuncture counts as one laboratory study, regardless of how many blood tubes are filled.

(d) Multiply the point value by the number of personnel required.

(e) May be any combination of the following to total 2 punctures for 24 hours.

(2) *Operational description.*

(a) Venipuncture—blood sample: Includes time to place the equipment at the bedside, don gloves, apply a tourniquet to the extremity, cleanse the site, perform a venipuncture, withdraw a blood sample, apply pressure to the puncture site, attach labels on the blood tubes, and remove the equipment from the area.

+ /or

(b) IV or A-line—blood sample: Includes time to place the equipment at the bedside, don gloves, clear the system, obtain a blood sample through the stopcock, flush the system, label samples, and remove the equipment from the area.

+ /or

(c) Arterial—blood gases: Includes time to place the equipment at the bedside, don gloves, locate the arterial puncture site, perform the puncture, draw blood, place the sample on ice, apply pressure to the puncture site, label the sample, and remove the equipment from the area.

+ /or

(d) Blood culture: Includes time to place the equipment at the bedside, don gloves, apply a tourniquet to the extremity, clean the site, perform venipuncture, withdraw a blood sample, apply pressure to the puncture site, apply labels on the blood culture bottle, and remove the equipment from the area.

h. AC 123 (2 points): *Medications—3 to 11 trips or q.3 hours to q.8 hours (includes prn, excludes IV medication).*

(1) Note.

(a) Count the number of trips made into the patient's room or the number of trips by the patient to the nurses' station, not the number of medications administered during each trip. Use this AC for patients who receive medications that require a trip

to the patient 3 to 11 times in a 24-hour period; that is, medications must be administered every 3 to 8 hours.

(b) This includes prn medications but only if the patient is receiving them. Determine projected needs by past requests and nursing judgement.

(c) Includes all methods of medication administration except IV and NG. Use ACs 45 to 47 for IV medications. Use AC 61 for medication given through an NG or gastric tube.

(d) Patients who receive medication b.i.d. or less (including prns) have acuity points built into the ADL codes.

(2) *Operational description.*

(a) Oral: Includes time, upon contact with patient, to obtain a glass of water and administer the oral medication.

+ /or

(b) Intramuscular: Includes time to place the equipment, locate the site for injection, administer the medication, and remove the equipment from the area.

+ /or

(c) Topical: Includes time to place the equipment, locate and expose the site for topical application of the medication, apply the medication, and then remove the equipment from the area.

+ /or

(d) Sublingual: Includes time to place the equipment, place the medication under the patient's tongue, and then remove the equipment from the area.

+ /or

(e) Subcutaneous: Includes time to place the equipment, locate the site for injection, administer the medication, and then remove the equipment from the area.

+ /or

(f) Suppository, rectal or vaginal: Includes time to place the equipment, prepare and administer the suppository, and then remove the equipment from the area.

+ /or

(g) Eye drops: Includes time to position the patient, instill eye drops, and then remove the equipment from the area.

+ /or

(h) Ear drops: Includes time to position the patient, instill ear drops, and then remove the equipment from the area.

+ /or

(i) Nose drops: Includes time to position the patient, instill nose drops, and then remove the equipment from the area.

i. AC 124 (4 points): *Medications—12 trips or more—q.2 hours (includes prn; excludes IV medication).*

(1) Note.

(a) Count the number of medication trips made into the patient's room or the number of trips by the patient to the nurses' station, not the number of medications administered during each trip. Use this AC for patients who receive medications that require a trip to the patient 12 times or more in a 24-hour period. Medications must be administered every 2 hours or more frequently.

(b) This includes prn medications, but only if the patient is receiving them. Determine projected needs by past requests and nursing judgement.

(c) Includes all methods of medication administration except IV and NG. Use ACs 45 to 47 for IV medications. Use AC 61 for medication given through an NG or gastric tube.

(2) *Operational description.*

(a) Oral: Includes time, upon contact with the patient, to obtain a glass of water and administer the oral medication.

+ /or

(b) Intramuscular: Includes time to place the equipment, locate the site for injection, administer the medication, and remove the equipment from the area.

+ /or

(c) Topical: Includes time to place the equipment, locate and expose the site for topical application of the medication, apply the medication, and remove the equipment from the area.

+ /or

(d) Sublingual: Includes time to place the equipment, place the medication under the patient's tongue, and remove the equipment from the area.

+ /or

(e) Subcutaneous: Includes time to place the equipment, locate the site for injection, administer the medication, and remove the equipment from the area.

+ /or

(f) Suppository, rectal or vaginal: Includes time to place the equipment, prepare and administer the suppository, and remove the equipment from the area.

+ /or

(g) Eye drops: Includes time to position the

patient, instill eye drops, and remove the equipment from the area.

+ /or

(h) Ear drops: Includes time to position the patient, instill ear drops, and remove the equipment from the area.

+ /or

(i) Nose drops: Includes time to position the patient, instill nose drops, and remove the equipment from the area.

j. AC 125 (2 points): *Restraints (2-point or 4-point) or Posey.*

(1) Note.

(a) Includes time to apply, monitor, and reapply restraints.

(b) Use in conjunction with AC 107, circulation checks q.2 hours. Increase the point value for increased frequency of circulation checks.

(2) *Operational description.* Upon arrival at the bedside, includes time to apply, monitor, or reapply 2-point, 4-point, or a Posey torso restraint.

k. AC 126 (12 points): *New admission—assessment and orientation.*

(1) Note.

(a) This factor is used for all new admissions and includes time for *all* admission assessment and orientation activities.

(b) This critical indicator can be selected within 24 hours of admission; therefore, patients admitted on the evening shift after a day's classifications can be classified the next day using AC 126.

(2) *Operational description.* Includes time to obtain the nursing data base, assess the physical and nursing history, orient the patient to the unit, instruct the patient about hospital regulations, and explain about ward policies.

l. AC 127 (4 points): *Transfer—between psychiatric units.*

(1) Note. This factor is to be used for any patient transferred from one psychiatric unit to another. If a patient is transferred from a medical and surgical unit to a psychiatric unit, it counts as a new admission since an entire psychiatric assessment and orientation must be done.

(2) *Operational description.* Includes time to review the patient's record, assess the patient, and orient the patient to the new unit, its personnel, and the unit policies.

m. ACs 128 to 130: *Accompany patient off unit (AC 128 (2 points): Accompany patient off unit 15 min; AC 129 (4 points): Accompany patient off unit 30 min; and AC 130 (6 points): Accompany patient off unit 45 min).*

(1) Note. Count 2 points for every 15 min a nursing staff member is off the nursing unit with a patient.

(2) *Operational description.* Anytime a nursing staff member is required to accompany a patient off the nursing unit for 15, 30, or 45 minutes; such as, accompanying a patient to the laboratory, clinic appointments, the PX, or to visit with the family off the unit.

n. *ACs 131 to 133: Other activities (not listed as critical indicators) (AC 131 (2 points): Other activities requiring 15 min; AC 132 (4 points): Other activities requiring 30 min; and AC 133 (6 points): Other activities requiring 45 min).*

(1) *Note.*

(a) Use to capture activities not listed as critical indicators.

(b) Multiply the point value by the number of staff members required.

(c) These activities must be documented in the patient's medical record.

(d) Patient care planning meetings may be counted if the patient is present.

(2) *Operational description.* Points may be given for direct care activities that require 15, 30, or 45 minutes and are not found on the critical indicator list.

o. *AC 134 (8 points): Each hour requiring continuous staff attendance or assistance.*

(1) *Note.*

(a) Count 8 points for each hour of continuous care required up to 4 hours. After that, use critical indicator AC 145, 1-to-1 coverage, all shifts.

(b) Multiply by the number of staff members required.

(2) *Operational description.* Assignment of one member of the nursing team to observe and provide direct nursing care to the patient during a specific activity. Examples of when this indicator should be used include—

(a) Administration of CPR to a cardiac arrest patient.

(b) Attending an unstable patient awaiting transfer to an ICU.

(c) Attending a severely agitated patient requiring staff attendance while sedation takes effect.

(d) Accompanying a patient off the unit 1 to 4 hours.

3-18. Therapeutic Interventions and/or Activities

a. *ACs 135 to 138: Purposeful interaction (AC 135 (2 points): Purposeful interaction—15 min; AC 136 (4 points): Purposeful interaction—30 min; AC 137 (6 points): Purposeful interaction—45 min; and AC 138 (8 points): Purposeful interaction—1 hour).*

(1) *Note.*

(a) This indicator includes activities such as 1:1 counseling, discharge planning, therapy, modifica-

tion of lifestyle, reality orientation, redirection, regulation, or crisis intervention.

(b) The activity must be listed on the patient profile or patient care plan.

(2) *Operational description.* Time spent with a patient in purposeful interaction, which is not in response to the patient call system or patient questions and during which direct physical care to the patient is not provided.

b. *AC 139 (6 points): Sensory deprivation (retarded, deaf, blind, etc.). Operational description.* Includes the extra time that must be taken for interaction with certain patients; such as those who are retarded, deaf, blind, foreign speaking, mute, or confused. Includes assessment of and protection from environmental hazards.

c. *AC 140 (2 points): Group activity on the unit—45 min to 1 hour (staff ratio 1:4 or 5).*

(1) *Note.* Other disciplines may participate without losing acuity points. Award 2 points to each patient, per hour, with a staff patient ratio of 1:4 or 5. Use AC 134 for each hour a patient requires individual nursing care or supervision within the group activity.

(2) *Operational description.* Includes those group interventions or activities on the ward that require nursing staff participation, supervision, and/or monitoring.

d. *AC 141 (2 points): Group activity off the unit—45 min to 1 hour (staff ratio 1:4 or 5).*

(1) *Note.* Other disciplines may participate without losing acuity points. Award 2 points to each patient, per hour, with a staff patient ratio of 1:4 or 5. Use AC 134 for each hour a patient requires individual nursing care or supervision within the group activity.

(2) *Operational description.* Includes group interventions or activities off the ward that require nursing staff participation, supervision, and/or monitoring. Examples of activities in this category are picnics, movies, softball, bowling, tours, occupational therapy, and physical therapy.

e. *AC 142 (2 points): Group activity—meetings—45 min to 1 hour (staff ratio 1:4 or 5).*

(1) *Notes:*

(a) Other disciplines may participate without losing acuity points. Award 2 points to each patient, per hour, with a staff patient ratio of 1:4 or 5. Use AC 134 for each hour a patient requires individual nursing care or supervision within the group activity.

(b) In specialized groups such as group therapy, communication skills groups, psycho drama, etc., a staff patient ratio of 1:4 or 5 should be utilized as the standard. Award 2 acuity points for each patient, per 1 hour group. In a ward meeting such as a community meeting at which the nursing staff act as facilitators, resource persons, providers of feed-

back to the assembled patient community, award 2 acuity points per patient per hour for a group.

(2) *Operational description.* Includes time for the nursing staff to participate as leaders, facilitators, or resource persons for a group.

3-19. Teaching

a. AC 143 (2 points): *Group teaching.*

(1) *Note.*

(a) Points for teaching should be given only for structured instruction. Classes or 1-to-1 teaching sessions must be documented in the patient's medical record.

(b) Count 2 points for each patient in a group class for each hour of instruction.

(2) *Operational description.* One hour of group instruction, to include nature and scope of the disease process, special care requirements, limitations and/or restrictions related to a disease or illness, and to answer questions.

b. AC 144 (4 points): *Individual teaching.*

(1) *Note.* This allows for 30 min of direct individual and/or family instruction. Multiply the point value in 30 min increments; that is, 1 hour of direct patient and/or family individual instruction is equal to 8 points.

(2) *Operational description.* Includes the time to provide individual instruction regarding the nature

and scope of the disease process, special care requirements, limitations and/or restrictions related to a disease or illness, and to answer questions.

3-20. Continuous

AC 145 (96 points): *Patient requiring 1:1 coverage on all shifts.*

a. *Note.* The continuous critical indicator is to be used for patients who require 1:1 care or greater.

b. *Operational description.*

(1) Includes time for one RN to render *all* care to a specific patient requiring continual 1-to-1 observation, supervision, and support. Examples include a suicide patient who must be kept within arms reach, or within line of sight, or a patient in 4-point restraints.

or

(2) Includes time for one paraprofessional to be assigned 1-to-1 to a patient. This individual will provide continual observation, supervision, support, and render care in the areas of VS monitoring, ADL, treatments, and feeding. Do not take additional points for these activities when the patient is classified *continuous*. Additional critical indicators may be taken for activities of the professional nurse as required in the areas of treatments, IVs, and teaching.

CHAPTER 4

INTERRATER RELIABILITY TESTING

4-1. Purpose

An IRR monitoring system must be a component of the WMSN in order to ensure that the system generates accurate and usable information. Reliability refers to the consistency or stability of measurement of the WMSN patient classification from user to user. Reliability is evaluated by having two individuals classify the same patient independently. A comparison of their classifications is then used to compute an index of equivalence or agreement between the classifiers.

4-2. Principles of IRR

a. The patient classification is completed by *two* independent raters—a unit nurse and an experienced classifier. Each nurse must classify independently; that is, neither should know the critical indicators the other has selected, until both have completed the classification process.

b. Both the unit nurse and the experienced classifier must have access to and use the same sources of information to assess the patient's acuity. The information sources used to select critical indicators to complete the classification are—

- (1) Unit or hospital-specific SOPs.
- (2) Department of nursing administrative procedures.
- (3) DA Form 3888 and DA Form 3888-1.
- (4) Nursing unit standards of care.
- (5) Inpatient history and physical.
- (6) DA Form 4677 and DA Form 4678.
- (7) DA Form 4700.
- (8) SF 511.
- (9) SF 510.

c. The experienced classifier must classify the patient as closely as possible to the time the unit nurse classified the patient. When a significant amount of time has passed between the time the unit level nurse and the experienced classifier classify the patient(s), the experienced classifier must recognize and discount any changes to the patient acuity that have occurred during this timeframe. The experienced classifier must try to classify the patient in the same context as the original classifier. Since patient acuity changes can sometimes be difficult to identify, it is recommended that the raters classify patient(s) within the same timeframe.

d. The approach used in assessing IRR in the WMSN patient classification system is *percent category agreement*, which is the ratio of the number of agreements of patients' category to the total number of possible agreements.

4-3. Policies for Establishing and Maintaining IRR

a. The HN will see that IRR testing is conducted among all the staff nurses assigned to his or her unit. The question to answer is "Does everyone use the WMSN consistently?"

(1) It is recommended that intraunit IRR for all staff nurses on a unit be conducted annually.

(2) When new staff nurses are assigned to a unit, the HN will have one nurse from that unit experienced with the WMSN patient classification system established IRR with the new staff nurse. New staff members will not classify patients until they have established an IRR on the unit.

(3) The HN will periodically conduct IRR whenever he or she believes that there are unit problems with reliability.

b. Quarterly reliability testing is to be done on all nursing units involved in the WMSN by independent, experienced patient classifiers appointed by the nursing administration.

(1) The assignment of a permanent experienced classifier to a unit(s) is recommended. These objective classifiers must be familiar with the unit standards of care, but not assigned to that unit. The experienced classifiers must establish IRR with the unit HNs and among themselves.

(2) A unit may be tested more frequently if required or directed by MTF policy.

(3) Results of the reliability testing will be tabulated and shared with the unit staff and appropriate nurse managers.

(4) IRR testing will take place on different days of the week.

(5) An IRR score of 80 percent is the goal. When reliability falls below 80 percent, actions to identify and correct the problems must be initiated. An IRR test will be done every month until a score of 80 percent is obtained. Actions may include staff discussions, inservice classes, 1-to-1 instruction with a specific staff member(s), and the development of new unit SOPs or standards of care to improve documentation.

4-4. Procedure for Conducting Quarterly IRR

The following guidelines are to be followed by the experienced classifier when conducting an IRR test.

a. Arrive unannounced on the unit as close to the time classifications are completed as possible.

b. The number of patients randomly selected for this quarterly IRR is determined based on table 4-1.

For units whose census is less than five, do IRR testing over several days until five classifications have been tested for the quarter.

Table 4-1. Sample size selection for quarterly IRR.

Unit census	Number selected
≤ 5	All patients
≥ 6 and ≤ 20	6
≥ 21 and ≤ 29	7
≥ 30 and ≤ 39	8
≥ 40	9

c. Use an accepted method to randomly select the patients to be used. All the patients should have an equal chance of being selected for IRR testing.

(1) One method would be to use a random numbers table (table 4-2). Going in any direction from any point on the table produces a random sequence. To use this table, assign each patient on the unit a number, for example for a census of 36, the numbers would be 1 to 36. Go to the random numbers table and select a start point by closing your eyes and letting your finger fall at some point on the table. From this start point select the first 8 numbers (the needed sample size) listed between 1 and 36. The patients that correspond to those numbers will be in the test sample.

(2) An alternative random selection method is call a systematic sample method. The classifier first chooses a number between one and the total unit census to be the start number. For example, on a unit with 15 patients, select a number between 1 and 15, such as 9. The rater then chooses a number between 2 and 10 to be the selection number, for example 3. Using a patient unit listing, the rater begins at the start number (the ninth listed patient) and chooses every third patient listed. If going through the roster or list the first time does not meet the calculated sample size, begin again at the top of the roster or list, selecting every third patient; skipping over those patients already selected.

d. Classify the selected patients using the source data identified in paragraph 4-2b.

e. Compare classifications between the unit staff and the experienced classifier. Discuss differences with staff members to determine the nature of the differences. Rectify—

(1) Discrepancies caused by the intervening time period; that is, changes of orders.

(2) Misunderstandings, misinterpretations, or discrepancies caused by the experienced classifier's lack of knowledge or oversight of the documented source information. Note the use of a critical indicator that is not in accordance with the operational descriptions contained in this reference, the selection of a critical indicator that is not supported by an approved source, and the omission of a critical indicator that is supported by an approved source.

Table 4-2. Table of random numbers

7	84	4	9	42	69	10	41	28	93
7	59	70	3	93	78	6	41	72	93
34	67	93	60	65	4	17	6	98	11
1	63	24	74	18	20	49	28	91	15
48	5	60	34	42	0	70	47	98	68
85	70	55	46	27	40	78	96	41	30
34	76	84	78	91	36	37	43	47	38
47	93	81	1	88	11	31	70	53	24
91	14	66	66	44	47	23	58	7	67
53	15	14	35	11	83	12	63	88	92
90	39	54	41	32	70	17	7	90	53
19	74	90	70	44	97	54	9	60	77
55	8	82	76	91	28	62	44	89	45
1	83	31	72	91	24	2	5	77	36
73	91	48	64	97	25	48	78	39	72
17	64	24	9	56	28	18	96	13	28
27	72	2	33	22	77	36	7	95	95
96	15	32	23	17	57	16	71	4	25
51	79	70	85	18	61	1	87	48	78
44	98	27	35	20	56	18	95	67	56
15	31	1	59	22	91	4	21	49	99
42	53	43	68	99	5	39	54	48	70
35	17	32	21	94	24	84	68	71	67
63	38	65	4	21	84	94	36	88	20
0	98	88	78	69	82	82	89	92	79
23	91	31	52	56	63	29	31	21	86
34	32	2	16	46	4	84	5	2	97
46	21	71	60	73	17	83	60	96	4
78	27	56	66	90	25	93	90	38	46
59	23	60	33	61	58	64	22	18	38
0	15	56	89	67	75	22	83	36	43
19	14	2	88	73	10	64	75	22	66
21	59	28	97	3	9	19	29	20	49
51	98	40	32	98	90	89	34	66	93
82	72	31	86	67	53	4	41	8	43
20	57	84	61	53	23	16	0	53	94
18	75	11	2	75	87	48	89	42	27
31	64	74	87	8	86	74	13	76	72
73	71	67	30	28	43	65	16	51	49
43	19	61	91	27	64	59	22	86	51
29	45	46	9	66	29	30	78	29	58
17	19	14	98	40	49	57	95	91	93
63	95	66	70	53	87	26	1	44	77
89	44	51	79	40	45	10	39	73	28
33	78	56	99	82	65	17	81	74	8
59	68	3	79	0	11	95	55	37	28
85	92	34	31	13	19	39	87	60	57
17	3	90	65	21	27	32	13	76	90
82	73	97	57	25	41	23	10	92	84
87	61	33	8	2	79	18	56	73	52

f. Select factor areas to be analyzed. Rotate factors so that all factor areas are analyzed on each unit in a year's period of time.

g. Complete DA Form 5391-R, (Workload Management System for Nursing Interrater Reliability (IRR) Testing). (See the reverse of the form for use.) This form will be reproduced locally using 8½- by 11-inch paper. A copy for reproduction (2 pages) is located at the back of this manual. (See also fig 4-1.)

h. Share results of the IRR test with the unit HN, unit staff members, the WMSN facility coordinator, and nursing administration in a timely manner.

i. Document actions taken in response to the IRR test results.

WORKLOAD MANAGEMENT SYSTEM FOR NURSING
 Interrater Reliability (IRR) Testing
SEE INSTRUCTIONS
ON REVERSE BEFORE
COMPLETING.

1. Hospital <i>Walter Reed Army MEDCEN</i>	2. Unit <i>42</i>
3. Date <i>1 NOV 89</i>	4. IRR Rater <i>John Adams LTC</i>

5. Sample Size Selection Table

Unit	Sample Size
≤ 5	all patients
≥ 6 and ≤ 20	6
≥ 21 and ≤ 30	7
≥ 31 and ≤ 40	<u>8</u>
≥ 41	9

6. Category Agreement

$$\frac{f (\# \text{ Agreed})}{e (\# \text{ Sampled})} \times 100\% = \frac{7}{8} \times 100\% = 88\% \text{ Agreement}$$

Provide the MEPRS Office with this IRR Category Agreement score and the date.

a. Patients	2	32	27	1	31	9	3	4			e. <u>8</u> # Sampled
b. Original Category	2	3	1	2	3	2	1	3			
c. Irr Category	2	4	1	2	3	2	1	3			
d. Agreed?	X		X	X	X	X	X	X			f. <u>7</u> # Agreed

7. Critical Indicator Agreement

a. Patients	2	32	27	1	31	9	3	4		Total Agreed d.	Max Poss e.	% Agreed f.
b. Factor	c. #											
<i>Vital Signs</i>	9	9	7	9	8	9	9	8	9	68	72	94%
<i>ADL</i>	8	8	6	8	8	8	8	8	6	60	64	94%
<i>Feeding</i>	9	9	9	8	6	9	9	6	8	64	72	89%
g. Overall Totals										192	208	92%

8. Notes on Differences.

Apical pulse taken with Digoxin administration.
Additional two points for AC-6, apical pulse g.i.d. or more, were not taken.
Complete care required. Points were taken for assisted care.

FM 8-501

j. Provide the facility MEPRS office with the unit score and date the IRR test was conducted. The MEPRS office inputs this information into the

UCAPERs PA system so that the latest IRR score is printed on all unit reports.

CHAPTER 5

THE MANPOWER STAFFING STANDARDS SYSTEM (MS-3)

5-1. Overview

a. The Army must justify its manpower requirements each year to the Office of the Secretary of Defense, Office of Management and Budget, and Congress. Increasing emphasis on personnel costs and national manpower resources has led each of these bodies to insist that budget requests be based on a realistic analysis of work to be done, and that staffing requirements be established by an accepted workload based process. To provide this requirement determination process and justification capability, the Army developed the MS-3. MS-3 changed the manpower requirement determination process from the staffing guide and survey approach to a workload driven standards based system. MS-3 standards function for TDA units and are based on peacetime workloads.

b. The USAFISA accepted the WMSN as an MS-3 standard in December 1986. As an MS-3 standard, WMSN replaced previously used yardsticks that were based on the daily average number of occupied beds. NCHs required are now the basis for determining manpower requirements.

c. The equations developed for these manpower standards were derived from data gathered and analyzed during three previous studies: *U.S. Army Nursing Care Hours Standards Study*, Sherrod, Rauch, and Twist, 1981; *Time Spent in Indirect Nursing Care*, Misener, Frelin A.J., 1983; and *Workload Management System for Nursing*, Vail, Norton, and Reider, 1987.

5-2. Responsibilities for WMSN Data and the MS-3 Application

Accuracy of patient categorization and quality of documentation are critical elements to the maintenance of the staffing standard. All levels of nursing management at the MTF share in this responsibility.

a. *Clinical staff nurse.* The objective and prospective classification of patients into appropriate categories of acuity is the most important aspect of the system. Inflating or underestimating the acuity categories carries serious implications, since this data determines the manpower requirements for each nursing unit. Because staff nurses are the ones who classify patients each day, they are responsible for the accurate classification of each patient.

b. *CHN.* The CHN ensures that all staff nurses understand the WMSN and that they classify patients correctly. The CHN personally monitors the accuracy of the unit's categorizations and maintains the WMSN data. Maintenance of the data may be

accomplished either manually or by an automated system. The data submitted for the annual application of the MS-3 must be kept on file for 3 years.

c. *Service or section chief.* The service or section chief monitors and analyzes monthly MS-3 data for units in his or her service or section and documents factors that increase or decrease workload, thereby affecting MS-3 requirements determination.

d. *IRR coordinator.*

(1) In each MTF a professional nurse, IRR coordinator, is responsible for managing the reliability testing program for the patient classification system. The IRR program coordinator ensures that a reliability check is completed quarterly on each unit under the MS-3 inpatient nursing standards.

(2) When a unit fails to receive a minimum of 80 percent reliability by category, monthly reliability testing is instituted until minimum reliability is achieved by the unit. Because of the potential impact on the MS-3 application, prompt resolution of the problem is imperative.

e. *CDON.*

(1) The CDON must ensure that the data used for the MS-3 applications are accurate. This data ultimately results in the number of nursing manpower requirements for the DON. Promoting professional nurses' accountability for the accuracy of WMSN data will help to ensure that the MS-3 application results in accurate and adequate nursing manpower requirements for the DON. Review and analysis of historical WMSN data will indicate whether workload and acuity is increasing or decreasing for a unit or the entire facility, and consequently highlight potential changes in the MS-3 yield of nursing manpower requirements.

(2) The CDON provides the acuity data on a monthly basis to the MTF's RMO. A close working relationship between the DON and RMO staffs is essential for the determination and allocation of nursing resources.

(3) The CDON ensures that workload data are transferred to the MACOM monthly.

f. *RMO.* The MTF RMO personnel monitor changes in the nursing staffing standard yield, actual staff, and current approved requirements due to changes in workload (acuity and/or census). This can best be accomplished by review and analysis of monthly MS-3 WMSN reports (figs 2-12 and 2-13). In collaboration with nursing personnel, analysis of the results will facilitate identification and documentation of variances, especially decreases in requirements. This will allow appropriate actions to be taken prior to the annual MS-3 application.

g. MACOM NMA.

(1) The MACOM NMA ensures that the MTF data are entered into the MACOM computer data base and forwarded to OTSG Manpower Programming and Analysis Division (DASG-HCM). Each quarter the MACOM NMA analyzes the data from each MTF for consistency and comparability to like size units with similar mission and beneficiary populations. A rationale must be determined for significant differences. The NMA monitors MTF and MACOM changes. An acuity increase of 20 percent or more in a unit must be fully explained by the MTF CDON. If necessary, the NMA will make an on-site visit to investigate. Findings will be reported to DASG-HCM. In addition, the NMA monitors the IRR scores, shares data and findings with the MCN, and provides an information copy to HQDA (DASG-CN), 5109 Leesburg Pike, Falls Church, VA 22041-3258.

(2) The MACOM NMA is the point of contact for the MS-3 application for inpatient nursing units for the MTF DON and RMO personnel. The MACOM NMA provides guidance and examples for the MS-3 standards to MTFs.

(3) The MACOM NMA functions as a liaison to USAFISA. This agency determines when the MS-3 inpatient nursing standards will be applied. The NMA is instrumental in the application, especially in the determination of MACOM proposed exceptions to the standards.

h. MCN. The MCN uses the annual MS-3 application results provided by the RMO to recommend distribution of authorizations by MTF.

i. WMSN PM or OTSG Manpower Officer. The MS-3 application data by unit and MTF for the entire AMEDD is maintained at this level. The WMSN PM tracks worldwide trends by monitoring the difference between current requirements, authorizations, and updated standard application yield; provides the Army's acuity or MS-3 data to the DOD; functions as liaison to the Joint Manpower Office, Office, Assistant Secretary of Defense (Health Affairs) and the USAFISA; and assists as needed with the review and analysis of MS-3 application data.

5-3. MS-3 Standards Application

a. Annual application. USAFISA provides the appropriate data collection reporting period and any required supplemental instructions to the MACOMs. Usually, 12 months' of acuity data but no less than 6 months' (average daily number of patients per acuity category) are used to determine a unit's manpower requirements. The MACOMs issue guidance to the MTFs. Once received, the MS-3 standard is applied to all nursing units under the standard. The facility RMO is the point of contact for questions and clarification of standards and exceptions. Once completed, the annual application results and proposed

exceptions to the standards are forwarded to the MACOM. The MACOM MS-3 proponent—

(1) Analyzes the standard application results and makes appropriate adjustments.

(2) Reviews and analyzes the command proposed exceptions to the manpower staffing standard and makes the required adjustments.

(3) Submits to USAFISA and OTSG a summary of the application results and documentation of proposed adjustments made to include recommended concurrence or nonconcurrence of command proposed exceptions.

b. Identification of potential manpower staffing standard exceptions.

(1) There are times when certain tasks or categories of work are not performed at all MTFs where the manpower standard applies. There are also times when the W/C conditions at some MTFs are significantly different, such as geographic location, unit configuration, or when the workload changes as a result of a change in mission, organization, or technology. When these situations exist, an exception to the manpower standard may be warranted. There are three kinds of exceptions to a manpower standard: Additives, exclusions, and deviations.

(a) Additives generally exist at particular MTFs if W/C personnel are required to accomplish a task that is not a part of the standard's W/C condition or the work is uncaptured in the WMSN. For example, patient care provided to outpatients by inpatient nursing personnel is work that is not a part of the W/C condition. If this workload were significant enough to result in additional manpower requirements, an additive could be justified.

(b) Exclusions may exist when a category or task is not accomplished at a particular location. Given the design of the WMSN, an exclusion would be rare.

(c) Deviations generally exist because of climatic conditions, travel distances, unique mission requirements, and equipment or procedural differences. A deviation is an exception that results in an additive or a subtractive standard. For example, geographically isolated facilities unsupported by community resources, unit configuration that necessitates increased staffing to provide safe care, compliance with professional organization standards, or a unique mission such as treatment of severely burned patients may qualify as deviations to the standards.

(2) For more information on exceptions consult with the facility RMO and refer to AR 570-5, chapter 4.

c. There are two automated WMSN reports that provide unofficial MS-3 application results monthly. For report information refer to chapter 2, paragraph 2-9. The Manpower Staffing Standards for Inpatient Nursing Ward Report (RCS MED-400) (fig 2-12) provides MS-3 unit level data. The Manpower Staff-

ing Standards for Inpatient Nursing Summary Report (RCS MED-400) (fig 2-13) furnishes a composite of manpower requirements determined by application of the MS-3 equations for all units. These reports facilitate monthly trend and variance analysis. It is important to monitor changes in the number of nursing manpower requirements each month and to document reasons for increases or decreases. For example, the requirements for an ICU decreased over a 6-month period due to the loss of a cardiologist; however, a replacement is scheduled to begin work shortly. This is vital information that must be communicated to the RMO and the MACOM so that the 6 months that do not accurately reflect workload for the unit may be considered for omission from the MS-3 application.

5-4. Completion of DA Form 140-4 (Manpower Survey Report—Schedule X—Manpower and Workload Data) (RCS CSGPA-1302). (See fig 5-1.)

a. General. The RMO at each MTF must submit three copies of the DA Form 140-4 for each nursing unit covered by the nursing staffing standards. The name of the MTF must be on every DA Form 140-4. Identify the nursing service in the BRANCH block and the individual unit by name, number, and type of W/C in the SECTION OR UNIT block.

b. Miscellaneous. Complete entries for SHEET NO. (number), LINE NO., and TDA PARA (paragraph). Omit entries for DESCRIPTION OF WORK PERFORMED, WORK UNIT, YARDSTICK ALLOWANCE COMPUTATION, and AMS CODE.

c. SECTION A. The SUMMARY OF MANPOWER must include the current approved requirements, authorizations, actual strength, and commander's recommendations.

d. SECTION B. The PERFORMANCE DATA must include AVE STR, TOTAL MAN-HOURS WORKED, HOURS OP IN MONTH (hours operational in a month), and EQUIV MAN-MONTHS (equivalent man-months) for the 12-month period stipulated by USAFISA. If local circumstances dictate less than 12 months of data be used, the RMO at the MTF must immediately notify the MACOM NMA. These circumstances must be fully explained and accepted or approved by the MACOM prior to submission of the MTF application package.

e. SECTION C. The MANPOWER must include all applicable information for allocated and actual strength.

f. SECTION D. The SPECIFIC REMARKS, COMMANDER section will generally contain only the acuity workload, formula calculation(s), and recommended staffing since there are few circumstances that can legitimately be considered for additives. If,

in the commander's judgment, the situation on a specific unit deserves special consideration, the circumstances must be fully described and the workload must be fully documented in accordance with AR 570-5. If manpower in addition to that earned from patient categorization data (additives) can be justified within the manpower staffing standards framework, a MACOM additive will be proposed to USAFISA, which has the final approval authority. It is unlikely that USAFISA will approve additional manpower requirements based on subjective narrative or historical precedence.

g. Additives. Additives that were approved for prior applications of the inpatient nursing standards will not automatically be continued or approved in the next application. MTFs must comply with the guidance in AR 570-5, when special consideration is warranted.

5-5. Determination of MS-3 Recommended Staffing

a. Recommended staffing will be included in the commander's specific remarks on each DA Form 140-4. (See fig 5-1.)

b. Total man-hours earned for each W/C are divided by the appropriate AAF. The whole number becomes the minimum number of manpower requirements for that unit. Do not round at the W/C level. The minimum number of requirements to staff a unit is 12 for CONUS and 13 for OCONUS. If the workload yields less than 12 or 13 requirements respectively, the unit still receives 12 or 13 requirements.

c. Guidance for rounding will be provided by the MACOM. Add any rounding requirements distributed by the CDON to the unit and any additives which are justified to the manpower requirements derived from the formula yield to determine the total manpower requirements for each unit.

d. Once the total number of manpower requirements has been determined for the W/C, determine the professional and paraprofessional mix by using the MS-3 personnel requirements chart (from among figs B-1 through B-7) for that type of unit (see app B).

e. Units have the option of trading paraprofessional requirements for clerical requirements based on local need.

f. For mixed wards (for example, female medicine and pediatrics), use the personnel requirements chart (fig B-5 or B-6 in the example) for that unit's predominant patient type. In addition, recommend an appropriate mix of RNs by type of specialty (for example, medical or surgical clinical nurse and pediatric clinical nurse). On maternal-infant units only, use the nursery personnel requirements chart.

g. After determining staff mix, determine the military and civilian mix. Do not inadvertently convert a civilian position to a "same skill level" military posi-

MANPOWER SURVEY REPORT - SCHEDULE X - MANPOWER AND WORKLOAD DATA										REQUIREMENT CONTROL SYMBOL CSQPA-1302	
MAJOR STAFF ELEMENT		DIVISION		BRANCH		SECTION OR UNIT		SHEET NO.		LINE NO.	
Ft Peterson		Dept of Nursing		Intensive Care		Ward 19 ICU		11		7	
DESCRIPTION OF WORK PERFORMED											
OMIT											
YARDSTICK CODE											
SECTION A - SUMMARY OF MANPOWER											
Intensive Care		Current Requirements		OFF		WO		ENL		US CIV	
WORK UNIT		8		8		9		9		15	
1. ALLOCATION		8		8		9		9		15	
2. ACTUAL STRENGTH		5		5		4		4		13	
3. RECM BY CO		9		9		7		7		9	
4. RECM BY SURVEY TEAM											
SECTION B - PERFORMANCE DATA											
YEAR AND MONTH		TOTAL MAN- HOURS WORKED		HRS OP IN MO		EQUIV MAN- MONTHS (c + d)		NO. OF WORK UNITS		W/L PERSON (f + g)	
19		b		c		d		e		f	
Jul87		28		3612		176		20.5		1	
Aug87		27		3659		168		21.8		7	
Sep87		28		3446		168		20.5		2	
Oct87		28		3858		168		23.0		1	
Nov87		31		4069		152		26.8		1	
Dec87		33		4275		176		24.2		3	
Jan88		31		4698		152		31.0		4	
Feb88		32		4400		160		28.0		1	
Mar88		30		4388		184		24.0		1	
Apr88		34		4940		168		29.4		1	
May88		33		3861		168		23.0		7	
Jun88		32		4516		176		26.0		6	
1. WORKLOAD USED AS BASIS OF APPRAISAL											
2. AVERAGE PRODUCTIVITY											
3. MANPOWER ALLOWANCE		OMIT									
SURVEY WORKLOAD (1) ()											
AVG PRODUCTIVITY (2) ()											
DA FORM 140-4		NOV 73									
PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.											

SAMPLE

Figure 5-1. Sample Schedule X.

SECTION D - SPECIFIC REMARKS

COMMANDER

1. Acuity workload and formula calculation: See Attached
2. Recommended Staffing:
- | | |
|----------------|---|
| 1 OFF (AN) | Medical/Surgical (Intensive Care) Clinical Head Nurse |
| 8 OFF (AN) | Medical/Surgical (Intensive Care) Clinical Nurse |
| 1 ENL | Wardmaster |
| 5 ENL | Practical Nurse |
| 1 ENL | Medical Specialist |
| 6 CIV | Medical/Surgical (Intensive Care) Clinical Nurse |
| 2 CIV | Practical Nurse |
| 1 CIV | Ward Clerk |
| <hr/> 25 TOTAL | |

SAMPLE

Figure 5-1. Sample Schedule X—Continued

FM 8-501

tion. List each military and each civilian position.

h. The number of recommended requirements *must* equal the number of requirements derived from

the formula yield (without rounding), plus any requirements gained from recommended additives or rounding requirements.

APPENDIX A

REFERENCES

Section I. RELATED PUBLICATIONS

Related publications are sources of additional information. They are not required in order to understand this publication.

ARMY REGULATIONS

- AR 40-6, Army Nurse Corps.
- AR 570-4, Manpower Management.
- AR 570-5, Manpower Staffing Standards System.

DA PAMPHLET

- DA Pam 570-4, Manpower Procedures Handbook.

CIVILIAN SOURCES

- Giovanetti, P., *A Review and Analysis of Two Patient Classification Systems*, Vols. I and II, Contract No. MDA 903-82-C-0360, September 1982. (This publication can be obtained from Health Management Systems Associates, 18 Greenway Gables, Minneapolis, MN 55403.)
- Goodwin, L., Prescott P., *Issues and Approaches to Estimating IRR in Nursing Research*, Research in Nursing and Health, vol 4, P323-332. (This publication is available at local medical libraries.)
- Marks, F. E., *Refining a Classification System for Fiscal and Staffing Management*, Journal of Nursing Administration, 17 (1): 39-43, January, 1987. (This publication is available at local medical libraries.)
- Misener, T. and Frelin, A.J., *Time Spent in Indirect Nursing Care*, DTIC Pub No. ADA 138338, 1983. (This publication can be obtained from the Defense Technical Information Center, Alexandria, VA 22304-6145.)
- Reider, K.A., and Lensing, S.B. *Nursing Productivity: Evolution of a Systems Model*, Nursing Management, 18 (8): 33-44, August, 1987. (This publication is available at local medical libraries.)
- Sherrod, S., Rauch, R., and Twist, P., *Nursing Care Hours Standards Study* Parts I-VIII, (4 volumes), DTIC Pub. Nos. ADA 109883 through 109886, 1981. (This publication can be obtained from the Defense Technical Information Center, Alexandria, VA 22304-6145.)
- Vail, J.D., *Workload Management System for Nursing*, A monograph prepared for the Chief, Army Nurse Corps. January 1986. (This publication can be obtained from HQDA (DASG-HCM), 5109 Leesburg Pike, Falls Church, VA 22041-3258.)
- Vail, J.D., Norton, D.A., and Reider, K.A., *Workload Management System Highlights Staffing Needs*, Nursing and Health Care, 8 (5): 288-93, May 1987. (This publication is available at local medical libraries.)
- Vail, J.D., Norton, D.A., and Rimm, E.A., *The Workload Management System for Nursing*, Walter Reed Army Medical Center Nursing Research Service, November 1984. (Out of Print.)

Section II. PRESCRIBED FORMS

- DA Form 5391-R, Workload Management System for Nursing Interrater Reliability (IRR) Testing.
- DD Form 2551 TEST, Patient Acuity Worksheet (General).
- DD Form 2552 TEST, Patient Acuity Worksheet (Psychiatric).

Section III. REFERENCED FORMS

- DA Form 140-4, Manpower Survey Report—Schedule X—Manpower and Workload Data (RCS CSGPA-1302).
- DA Form 2028, Recommended Changes to Publications and Blank Forms.
- DA Form 3888, Medical Record—Nursing Assessment and Care Plan.
- DA Form 3888-1, Medical Record—Nursing Assessment and Care Plan (Continuation).

FM 8-501

DA Form 4677, Therapeutic Documentation Care Plan (Non-Medication).
DA Form 4678, Therapeutic Documentation Care Plan (Medication).
DA Form 4700, Medical Record—Supplemental Medical Data.
SF 510, Clinical Record—Nursing Notes.
SF 511, Medical Record—Vital Signs Record.

APPENDIX B

MS-3 PERSONNEL REQUIREMENTS CHARTS

B-1. General

MS-3 personnel requirements charts are used in conjunction with the application of the MS-3 inpatient nursing standards. After the total requirements for a nursing unit have been computed, these charts are used to determine the skill mix. There are seven charts, one for each type of unit to which the MS-3 standards are applied.

a. Figure B-1, Chart B-1: Intensive Care Unit MS-3 Personnel Requirements.

b. Figure B-2, Chart B-2: Medical or Surgical Unit MS-3 Personnel Requirements.

c. Figure B-3, Chart B-3: Neonatal Intensive Care Unit MS-3 Personnel Requirements.

d. Figure B-4, Chart B-4: Newborn Nursery Unit MS-3 Personnel Requirements.

e. Figure B-5, Chart B-5: Obstetrics (Ante/Postpartum) Unit MS-3 Personnel Requirements.

f. Figure B-6, Chart B-6: Pediatrics Unit MS-3 Personnel Requirements.

g. Figure B-7, Chart B-7: Psychiatric Unit MS-3 Personnel Requirements.

B-2. Objective

MS-3 personnel requirements charts (figs B-1 through B-7) provide the nursing staff mix for a specific unit, once the total number of requirements have been determined by the MS-3 application.

B-3. Use of the charts

After the total manpower requirements have been determined for the W/C, select the chart (figs B-1 through B-7) that corresponds to the unit type. Determine the staff mix by identifying the correct number of requirements in the TOTAL REQMT column and read across the row.

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
12	1	1	5	4	1
13	1	1	6	4	1
14	1	1	7	4	1
15	1	1	8	4	1
16	1	1	8	5	1
17	1	1	9	5	1
18	1	1	9	5	2
19	1	1	10	5	2
20	1	1	11	5	2
21	1	1	11	6	2
22	1	1	12	6	2
23	1	1	12	7	2
24	1	1	13	7	2
25	1	1	14	7	2
26	1	1	14	8	2
27	1	1	15	8	2
28	1	1	15	8	3
29	1	1	16	8	3
30	1	1	17	8	3
31	1	1	17	9	3
32	1	1	18	9	3
33	1	1	18	10	3

Figure B-1. Chart B-1: Intensive Care Unit MS-3 Personnel Requirements (sheet 1 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
34	1	1	19	10	3
35	1	1	19	11	3
36	1	1	20	11	3
37	1	1	21	11	3
38	1	1	21	11	4
39	1	1	22	11	4
40	1	1	22	12	4
41	1	1	23	12	4
42	1	1	24	12	4
43	1	1	24	13	4
44	1	1	25	13	4
45	1	1	25	14	4
46	1	1	26	14	4
47	1	1	27	14	4
48	1	1	27	14	5
49	1	1	28	14	5
50	1	1	28	15	5
51	1	1	29	15	5
52	1	1	30	15	5
53	1	1	30	16	5
54	1	1	31	16	5
55	1	1	31	17	5

Figure B-1. Chart B-1: Intensive Care Unit MS-3 Personnel Requirements (sheet 2 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
56	1	1	32	17	5
57	1	1	32	17	6
58	1	1	33	17	6
59	1	1	34	17	6
60	1	1	34	18	6
61	1	1	35	18	6
62	1	1	35	19	6
63	1	1	36	19	6
64	1	1	37	19	6
65	1	1	37	20	6
66	1	1	38	20	6
67	1	1	38	20	7
68	1	1	39	20	7
69	1	1	40	20	7
70	1	1	40	21	7
71	1	1	41	21	7
72	1	1	41	22	7
73	1	1	42	22	7
74	1	1	42	23	7
75	1	1	43	23	7

Figure B-1. Chart B-1: Intensive Care Unit MS-3 Personnel Requirements (sheet 3 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
12	1	1	5	2	3
13	1	1	5	3	3
14	1	1	5	3	4
15	1	1	5	4	4
16	1	1	6	4	4
17	1	1	6	4	5
18	1	1	6	5	5
19	1	1	7	5	5
20	1	1	7	5	6
21	1	1	8	5	6
22	1	1	8	6	6
23	1	1	8	6	7
24	1	1	9	6	7
25	1	1	9	7	7
26	1	1	10	7	7
27	1	1	10	7	8
28	1	1	10	8	8
29	1	1	11	8	8
30	1	1	11	8	9
31	1	1	12	8	9
32	1	1	12	9	9
33	1	1	12	9	10

Figure B-2. Chart B-2: Medical or Surgical Unit Care Unit MS-3 Personnel Requirements (sheet 1 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
34	1	1	13	9	10
35	1	1	13	10	10
36	1	1	14	10	10
37	1	1	14	10	11
38	1	1	14	11	11
39	1	1	15	11	11
40	1	1	15	11	12
41	1	1	16	11	12
42	1	1	16	12	12
43	1	1	16	12	13
44	1	1	17	12	13
45	1	1	17	13	13
46	1	1	18	13	13
47	1	1	18	13	14
48	1	1	18	14	14
49	1	1	19	14	14
50	1	1	19	14	15
51	1	1	20	14	15
52	1	1	20	15	15
53	1	1	20	15	16
54	1	1	21	15	16
55	1	1	21	16	16

Figure B-2. Chart B-2: Medical or Surgical Unit Care Unit MS-3 Personnel Requirements (sheet 2 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
56	1	1	22	16	16
57	1	1	22	16	17
58	1	1	22	17	17
59	1	1	23	17	17
60	1	1	23	17	18
61	1	1	24	17	18
62	1	1	24	18	18
63	1	1	24	18	19
64	1	1	25	18	19
65	1	1	25	19	19
66	1	1	26	19	19
67	1	1	26	19	20
68	1	1	26	20	20
69	1	1	27	20	20
70	1	1	27	20	21
71	1	1	28	20	21
72	1	1	28	21	21
73	1	1	28	21	22
74	1	1	29	21	22
75	1	1	29	22	22

Figure B-2. Chart B-2: Medical or Surgical Unit Care Unit MS-3 Personnel Requirements (sheet 3 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
12	1	1	8	2	0
13	1	1	9	2	0
14	1	1	10	2	0
15	1	1	10	2	1
16	1	1	11	2	1
17	1	1	12	2	1
18	1	1	13	2	1
19	1	1	14	2	1
20	1	1	14	3	1
21	1	1	15	3	1
22	1	1	16	3	1
23	1	1	17	3	1
24	1	1	18	3	1
25	1	1	18	4	1
26	1	1	19	4	1
27	1	1	20	4	1
28	1	1	21	4	1
29	1	1	22	4	1
30	1	1	22	5	1
31	1	1	23	5	1
32	1	1	24	5	1
33	1	1	25	5	1

Figure B-3. Chart B-3: Neonatal Intensive Care Unit MS-3 Personnel Requirements (sheet 1 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
34	1	1	26	5	1
35	1	1	26	5	2
36	1	1	27	5	2
37	1	1	28	5	2
38	1	1	29	5	2
39	1	1	30	5	2
40	1	1	30	6	2
41	1	1	31	6	2
42	1	1	32	6	2
43	1	1	33	6	2
44	1	1	34	6	2
45	1	1	34	7	2
46	1	1	35	7	2
47	1	1	36	7	2
48	1	1	37	7	2
49	1	1	38	7	2
50	1	1	38	8	2
51	1	1	39	8	2
52	1	1	40	8	2
53	1	1	41	8	2
54	1	1	42	8	2
55	1	1	42	8	3

Figure B-3. Chart B-3: Neonatal Intensive Care Unit MS-3 Personnel Requirements (sheet 2 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
56	1	1	43	8	3
57	1	1	44	8	3
58	1	1	45	8	3
59	1	1	46	8	3
60	1	1	46	9	3
61	1	1	47	9	3
62	1	1	48	9	3
63	1	1	49	9	3
64	1	1	50	9	3
65	1	1	50	10	3
66	1	1	51	10	3
67	1	1	52	10	3
68	1	1	53	10	3
69	1	1	54	10	3
70	1	1	54	11	3
71	1	1	55	11	3
72	1	1	56	11	3
73	1	1	57	11	3
74	1	1	58	11	3
75	1	1	58	11	4

Figure B-3. Chart B-3: Neonatal Intensive Care Unit MS-3 Personnel Requirements (sheet 3 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
12	1	1	6	2	2
13	1	1	6	3	2
14	1	1	7	3	2
15	1	1	7	3	3
16	1	1	8	3	3
17	1	1	8	4	3
18	1	1	9	4	3
19	1	1	10	4	3
20	1	1	10	4	4
21	1	1	11	4	4
22	1	1	11	5	4
23	1	1	12	5	4
24	1	1	12	5	5
25	1	1	13	5	5
26	1	1	13	6	5
27	1	1	14	6	5
28	1	1	15	6	5
29	1	1	15	6	6
30	1	1	16	6	6
31	1	1	16	7	6
32	1	1	17	7	6
33	1	1	17	7	7

Figure B-4. Chart B-4: Newborn Nursery Unit MS-3 Personnel Requirements (sheet 1 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
34	1	1	18	7	7
35	1	1	18	8	7
36	1	1	19	8	7
37	1	1	20	8	7
38	1	1	20	8	8
39	1	1	21	8	8
40	1	1	21	9	8
41	1	1	22	9	8
42	1	1	22	9	9
43	1	1	23	9	9
44	1	1	24	9	9
45	1	1	24	10	9
46	1	1	25	10	9
47	1	1	25	10	10
48	1	1	26	10	10
49	1	1	26	11	10
50	1	1	27	11	10
51	1	1	27	11	11
52	1	1	28	11	11
53	1	1	29	11	11
54	1	1	29	12	11
55	1	1	30	12	11

Figure B-4. Chart B-4: Newborn Nursery Unit MS-3 Personnel Requirements (sheet 2 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
56	1	1	30	12	12
57	1	1	31	12	12
58	1	1	31	13	12
59	1	1	32	13	12
60	1	1	32	13	13
61	1	1	33	13	13
62	1	1	34	13	13
63	1	1	34	14	13
64	1	1	35	14	13
65	1	1	35	14	14
66	1	1	36	14	14
67	1	1	36	15	14
68	1	1	37	15	14
69	1	1	38	15	14
70	1	1	38	15	15
71	1	1	39	15	15
72	1	1	39	16	15
73	1	1	40	16	15
74	1	1	40	16	16
75	1	1	41	16	16

Figure B-4. Chart B-4: Newborn Nursery Unit MS-3 Personnel Requirements (sheet 3 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
12	1	1	5	3	2
13	1	1	5	3	3
14	1	1	5	4	3
15	1	1	5	4	4
16	1	1	6	4	4
17	1	1	6	5	4
18	1	1	6	5	5
19	1	1	7	5	5
20	1	1	7	6	5
21	1	1	8	6	5
22	1	1	8	7	5
23	1	1	8	7	6
24	1	1	9	7	6
25	1	1	9	8	6
26	1	1	10	8	6
27	1	1	10	8	7
28	1	1	10	9	7
29	1	1	11	9	7
30	1	1	11	9	8
31	1	1	12	9	8
32	1	1	12	10	8
33	1	1	12	10	9

Figure B-5. Chart B-5: Obstetrics (Ante/Postpartum) Unit MS-3 Personnel Requirements (sheet 1 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
34	1	1	13	10	9
35	1	1	13	11	9
36	1	1	14	11	9
37	1	1	14	12	9
38	1	1	14	12	10
39	1	1	15	12	10
40	1	1	15	13	10
41	1	1	16	13	10
42	1	1	16	13	11
43	1	1	16	14	11
44	1	1	17	14	11
45	1	1	17	14	12
46	1	1	18	14	12
47	1	1	18	15	12
48	1	1	18	15	13
49	1	1	19	15	13
50	1	1	19	16	13
51	1	1	20	16	13
52	1	1	20	16	14
53	1	1	20	17	14
54	1	1	21	17	14
55	1	1	21	18	14

Figure B-5. Chart B-5: Obstetrics (Ante/Postpartum) Unit MS-3 Personnel Requirements (sheet 2 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
56	1	1	22	18	14
57	1	1	22	18	15
58	1	1	22	19	15
59	1	1	23	19	15
60	1	1	23	19	16
61	1	1	24	19	16
62	1	1	24	20	16
63	1	1	24	20	17
64	1	1	25	20	17
65	1	1	25	21	17
66	1	1	26	21	17
67	1	1	26	21	18
68	1	1	26	22	18
69	1	1	27	22	18
70	1	1	27	23	18
71	1	1	28	23	18
72	1	1	28	23	19
73	1	1	28	24	19
74	1	1	29	24	19
75	1	1	29	24	20

Figure B-5. Chart B-5: Obstetrics (Ante/Postpartum) Unit MS-3 Personnel Requirements (sheet 3 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
12	1	1	5	2	3
13	1	1	6	2	3
14	1	1	6	3	3
15	1	1	7	3	3
16	1	1	7	3	4
17	1	1	8	3	4
18	1	1	8	4	4
19	1	1	9	4	4
20	1	1	9	4	5
21	1	1	10	4	5
22	1	1	10	5	5
23	1	1	11	5	5
24	1	1	11	5	6
25	1	1	12	5	6
26	1	1	12	6	6
27	1	1	13	6	6
28	1	1	13	6	7
29	1	1	14	6	7
30	1	1	14	7	7
31	1	1	15	7	7
32	1	1	15	7	8
33	1	1	16	7	8

Figure B-6. Chart B-6: Pediatrics Unit MS-3 Personnel Requirements (sheet 1 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
34	1	1	16	8	8
35	1	1	17	8	8
36	1	1	17	8	9
37	1	1	18	8	9
38	1	1	18	8	10
39	1	1	19	8	10
40	1	1	19	9	10
41	1	1	20	9	10
42	1	1	20	9	11
43	1	1	21	9	11
44	1	1	21	10	11
45	1	1	22	10	11
46	1	1	22	10	12
47	1	1	23	10	12
48	1	1	23	11	12
49	1	1	24	11	12
50	1	1	24	11	13
51	1	1	25	11	13
52	1	1	25	12	13
53	1	1	26	12	13
54	1	1	26	12	14
55	1	1	27	12	14

Figure B-6. Chart B-6: Pediatrics Unit MS-3 Personnel Requirements (sheet 2 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
56	1	1	27	13	14
57	1	1	28	13	14
58	1	1	28	13	15
59	1	1	29	13	15
60	1	1	29	14	15
61	1	1	30	14	15
62	1	1	30	14	16
63	1	1	31	14	16
64	1	1	31	15	16
65	1	1	32	15	16
66	1	1	32	15	17
67	1	1	33	15	17
68	1	1	33	16	17
69	1	1	34	16	17
70	1	1	34	16	18
71	1	1	35	16	18
72	1	1	35	16	19
73	1	1	36	16	19
74	1	1	36	17	19
75	1	1	37	17	19

Figure B-6. Chart B-6: Pediatrics Unit MS-3 Personnel Requirements (sheet 3 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
12	1	1	5	2	3
13	1	1	5	2	4
14	1	1	5	2	5
15	1	1	5	2	6
16	1	1	5	3	6
17	1	1	6	3	6
18	1	1	6	3	7
19	1	1	6	3	8
20	1	1	7	3	8
21	1	1	7	4	8
22	1	1	8	4	8
23	1	1	8	4	9
24	1	1	8	4	10
25	1	1	9	4	10
26	1	1	9	5	10
27	1	1	10	5	10
28	1	1	10	5	11
29	1	1	10	5	12
30	1	1	11	5	12
31	1	1	11	5	13
32	1	1	11	6	13
33	1	1	12	6	13

Figure B-7. Chart B-7: Psychiatric Unit MS-3 Personnel Requirements (sheet 1 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
34	1	1	12	6	14
35	1	1	13	6	14
36	1	1	13	6	15
37	1	1	13	7	15
38	1	1	14	7	15
39	1	1	14	7	16
40	1	1	14	7	17
41	1	1	15	7	17
42	1	1	15	8	17
43	1	1	16	8	17
44	1	1	16	8	18
45	1	1	16	8	19
46	1	1	17	8	19
47	1	1	17	8	20
48	1	1	17	9	20
49	1	1	18	9	20
50	1	1	18	9	21
51	1	1	19	9	21
52	1	1	19	9	22
53	1	1	19	10	22
54	1	1	20	10	22
55	1	1	20	10	23

Figure B-7. Chart B-7: Psychiatric Unit MS-3 Personnel Requirements (sheet 2 of 3).

AS OF: 21 AUG 89

TOTAL REQMT	HEAD NURSE	WARD MASTER	RNs	LPNs	NAs
56	1	1	21	10	23
57	1	1	21	10	24
58	1	1	21	11	24
59	1	1	22	11	24
60	1	1	22	11	25
61	1	1	22	11	26
62	1	1	23	11	26
63	1	1	23	11	27
64	1	1	24	11	27
65	1	1	24	12	27
66	1	1	24	12	28
67	1	1	25	12	28
68	1	1	25	12	29
69	1	1	25	13	29
70	1	1	26	13	29
71	1	1	26	13	30
72	1	1	27	13	30
73	1	1	27	13	31
74	1	1	27	14	31
75	1	1	28	14	31

Figure B-7. Chart B-7: Psychiatric Unit MS-3 Personnel Requirements (sheet 3 of 3).

GLOSSARY

Section I. ABBREVIATIONS

AAF	Army availability factor
AC	acuity code
ADJ	adjust
ADL	activities of daily living
AHS	Academy of Health Sciences, U.S. Army
A-line	arterial line
a.m.	before noon
AMEDD	(U.S.) Army Medical Department
AMO	automation management officer
AMS	Army Management Structure
AN	Army Nurse Corps
APC	Account Processing Code
AQCESS	Automated Quality Care Evaluation Support System
ASSN	Assigned
ASSGN	assigned
AUTH	authorized
AVAIL	available
AVE	average
AVG	average
b.i.d.	twice a day
BORR	borrowed
CC	critical care
CDON	chief, department of nursing
CHN	clinical head nurse
CI	command interest
CN	chief nurse
CONUS	continental United States
CPR	cardiopulmonary resuscitation
CT	compensatory time
CURR	current
CVP	central venous pressure
DA	Department of the Army
DIFF	difference
DOD	Department of Defense
DON	department of nursing
ECG	electrocardiogram

FM 8-501

EQUIV	equivalent
FHT	fetal heart tones
FTE	full time equivalent
GEOM	geometric
GI	gastrointestinal
HCSSA	Health Care Systems Support Activity
HN	head nurse
HQDA	Headquarters, Department of the Army
HR	hour(s)
I&O	intake and output
ICP	intracranial pressure
ICU	intensive care unit
IPPB	intermittent positive pressure breathing
IRR	interrater reliability
ITR	inpatient treatment record
IV	intravenous
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
LCL	lower control limits
LPN	licensed practical nurse
MACOM	major Army command
MCN	MACOM chief nurse
MEPRS	Medical Expense and Performance Reporting System
min	minute(s)
M/S	medical and/or surgical
MS-3	Manpower Staffing Standards System
MTF	medical treatment facility
NA	nursing assistant
NBN	newborn nursery
NCH	nursing care hour
NG	nasogastric (tube)
NIC	neonatal intensive care
NICU	neonatal intensive care unit
NMA	nurse methods analyst
no. (NO.)	number
OB	obstetrics
occ	occupied
OCONUS	outside continental United States
OP	operational
OR	operating room

OT	overtime
OTSG	Office of The Surgeon General
PA	patient acuity
PAP	pulmonary artery pressure
PARA (para)	paragraph
PARA	paraprofessional
PCA	Patient Controlled Analgesia (machine)
PED	pediatrics
PM	program manager
p.m.	afternoon
PMAD	personnel management authorization document
POC	point of contact
prn	according as circumstances may require
PROF	professional
PSY	psychiatry
PTNTS	patients
q.	operation performed every; for example, q.4 hours (operation performed every 4 hours) (see also q.i.d.)
q.i.d.	4 times a day ((operation or something) done 4 times in a day)
RCS	Requirement Control Symbol
REG	regular
REQ	required
REQD	required
REQMT	requirement(s)
RMO	resource management office
RN	registered nurse
ROM	range of motion
RQMT(S)	requirement(s)
SCHED	scheduled
S&A	sugar and acetone
SC	special category
SI	seriously ill
SOP	standing operating procedure
STD DEV	standard deviation
STR	strength
TAA	Total Army Analysis
TDA	table of distribution and allowances
t.i.d.	3 times a day
TOT	total
UCA	Uniform Chart of Accounts

FM 8-501

UCAPERS	Uniform Chart of Accounts Personnel Utilization System
UCAPERS PA	Uniform Chart of Accounts Personnel Utilization System Patient Acuity
UCL	upper control limits
UIC	Unit Identification Code
USAFISA	U.S. Army Force Integration Support Agency
VS	versus
VS	vital sign(s)
VSJ	very seriously ill
WAE	when actually employed
WC	ward clerk
W/C	workcenter
WM	wardmaster
WMS	Workload Management System
WMSN	Workload Management System for Nursing

Section II. TERMS

Actual strength

The number of personnel in, or projected to be, in an organization or account at a specified point in time.

Army availability factor

The average number of hours per month that military personnel and civilian employees in TDA organizations are expected to be available for work on assigned jobs. The AAF is 145 hours per month.

Assigned strength

The number of personnel in a unit or service, not necessarily equal to actual strength since individuals may be assigned but not present for duty.

Authorizations

The number of military and civilian manpower spaces budgeted for fill against requirements.

Category

The representative grouping of patients according to their nursing care requirements. The WMSN consists of the following:

Category	Point range	Direct care description
0	0	Pass
I	0-12	Self care/minimal care
II	13-31	Moderate care
III	32-63	Acute care (1 staff to 3 patients)
IV	64-95	Intensive care (1 staff to 3 patients)
V	96-145	Continuous care (1 staff to 1 patient)
VI	146-256	Critical care (>1 staff to 1 patient)

Critical indicators

Those activities on the patient classification instrument that have the greatest impact on direct care time.

Direct care time

Activities that take place in the presence of the patient and/or family (usually at the patient's bedside). These activities are observable, behavioral, and include the following:

- Placement of equipment at the bedside.
- Explanation of a procedure to the patient.

- c. Preparation of the patient.
- d. Performance of a task.
- e. Removal of equipment from the area.
- f. Recording (if at bedside; that is, VS, I&O, etc.).
- g. Assessment of observation.
- h. Teaching.

Factors

A group of critical indicators that cover one specific domain of activities. They include the following areas: VS, monitoring, ADL, feeding, treatments, respiratory therapy, IV therapy, teaching, emotional support, and continuous care.

Indirect nursing care time

Time required for those activities and tasks performed away from the patient and/or family. In the WMSN indirect nursing care is composed of the following percentages of time: Medical-surgical: 76 percent; pediatrics: 72.7 percent; psychiatry: 68.9 percent; critical care: 66 percent; and nursery: 63 percent.

Interrater reliability

The agreement by category that is achieved when two trained raters assess the same patient during the same time period using the same patient classification instrument.

Manpower Staffing Standards System (MS-3)

A system that develops manpower requirements analytically and objectively through work measurement, using regression analysis and statistically valid procedures. Requirements based on staffing standards are developed based on workload and the manpower required to perform the work.

MS-3 personnel requirements

The total number of personnel required to accomplish the mission as determined by application of staffing standards.

Nursing care hour requirements

Number of hours of nursing care time required for each category of patient based upon an assessment of their direct and indirect nursing care requirements in the WMSN.

Patient acuity worksheet

The form used to determine direct care time. These are single page (front and back) forms (DD Form 2551 TEST and DD Form 2552 TEST) that are used with both the manual and automated systems.

Patient classification system

The identification and classification of patients into care groups or categories and the quantification of these categories into a measure of nursing effort required over a specific period of time.

Personnel requirements (daily)

The required number of staff for a 24-hour period as calculated by the WMSN using the patient acuity data and the personnel distribution formulas.

Points

The numbers assigned to each specific critical indicator based upon documented time and motion studies. Each point is equal to 7.5 min of direct nursing care time.

Reliability

The consistency between measurements.

Requirements

The minimum essential number of military and civilian positions needed to accomplish valid mission responsibilities.

Workload Management System for Nursing

A patient classification system with a factor-evaluation design instrument that requires the rater to assess 10 factors relating to patient care and determine a point value for each factor. The weighted scores are calculated, and the patients are classified into 1 of 6 discrete categories. A staffing methodology is used for determining the actual NCH requirements and the number of mix personnel recommended for care. This system has both a direct care and an indirect care component.

INDEX

	<i>Paragraph</i>	<i>Page</i>
Abbreviations	Glossary	Glossary-1
Accompany patient off nursing unit	3-8x	3-21
Ace wraps	3-8c(2e)	3-16
Activities of daily living	3-5	3-8
Actual strength defined	Glossary	Glossary-4
Adjusting monitors or connecting leads or reset alarms	3-4e(2) (a)	3-7
Administering medications:		
b.i.d. or less	3-5e	3-10
Blood products	3-7h	3-16
Ambulatory weight	3-5d(2) (l)	3-10
Answering patient's questions and responding to crying	3-5k(2) (b)	3-13
AQCESS and UCAPERS interface	2-4	2-7
Archiving WMSN data	2-11	2-26
Army availability factor defined	Glossary	Glossary-4
Arterial blood gases	3-8j(2) (c)	3-18
Arterial line or intracranial pressure (monitor or Swan Ganz setup)	3-4g	3-8
Arterial line intracranial pressure monitor reading	3-4h	3-8
Arterial line setup or transducer exchange	3-4g(2) (a)	3-8
Arterial puncture	3-8j(2) (c)	3-18
Assigned strength defined	Glossary	Glossary-4
Assist out of bed to chair or stretcher and return	3-8o	3-20
Assist out of bed, walk and return	3-8p	3-20
Assist to bathroom	3-8p	3-20
Assist with position change	3-5g	3-11
Assist while walking	3-8p	3-20
b.i.d. defined	Glossary	Glossary-1
Bathing:		
Assist with back and legs	3-5f(2) (a)	3-10
Complete	3-5g(2) (a)	3-11
Face and hands	3-5f(2) (f)	3-11
Bed scale weight	3-5h(2) (j)	3-12
Bilirubin testing	3-8h(2) (e)	3-17
Blood culture	3-8j(2) (d)	3-18
Blood pressure:		
Arterial line	3-4h(2) (a)	3-8
Arteriosonde	3-3a(2) (c)	3-5
Lying	3-3d(2) (a)	3-5
Manual	3-3a(2) (b)	3-5
Sitting	3-3d(2) (b)	3-6
Standing	3-3d(2) (c)	3-6
Blood products	3-7h	3-16
Blow bottles	3-9b(2) (b)	3-22
Cardiac output: measurement	3-4j	3-8
Cardiac/apnea/temperature/blood pressure monitoring electronically	3-4e	3-7
Care:		
Assisted	3-5f	3-10
Complete	3-5g	3-11
Infant and toddler	3-5d	3-8
Self/minimal	3-5e	3-10
Total	3-5h	3-12
Category defined	Glossary	Glossary-4
Catheterization:		
Foley	3-8d(2) (a)	3-16
Straight	3-8d(2) (b)	3-17

	<i>Paragraph</i>	<i>Page</i>
Central venous pressure	3-4d(2) (a)	3-7
Central venous pressure monitoring or intracranial pressure monitoring	3-4d	3-7
Change IV bottle/bag	3-7c	3-14
Chest:		
Pulmonary therapy	3-9e	3-22
Tube insertion	3-8s	3-20
Chief, department of nursing	1-4f	1-5
Chief, nursing education and staff development	1-4e	1-5
Chief/coordinator, clinical nursing service/section	1-4c	1-5
Circulation checks	3-4b	3-7
Circumcision	3-8q(2) (a)	3-20
Clinical head nurse	1-4b	1-5
Clinical staff nurse	1-4a	1-5
Complex dressing change	3-8g	3-17
Continuous coverage	3-12	3-23
Cough and deep breathe	3-9b(2) (c)	3-22
Critical indicators defined	3-1a	3-1
General	3-3—3-12	3-4—3-24
Guidelines for use of	chap 3	3-1
Psychiatric	3-13—3-20	3-24—3-33
Critical indicators general information	3-1	3-1
Croup tent	3-9d	3-22
Daily personnel requirements defined	Glossary	Glossary-5
Diaphoretic	3-5i(2) (b)	3-13
Direct care time defined	Glossary	Glossary-4
Dressing:		
Complex	3-8g	3-17
Simple	3-8f	3-17
Each hour requiring continuous staff attendance	3-8z	3-21
Ear drops	3-8k(2) (h)	3-19
Electrocardiogram	3-8i	3-18
Emotional support	3-11	3-23
Enema:		
Cleansing	3-8c(2) (b)	3-16
Retention	3-8c(2) (c)	3-16
Escort patients to dining hall	3-16c	3-28
Extra linen change and partial bath (x2 per shift)	3-5i	3-12
Eye drops	3-8k(2) (g)	3-19
Factors defined	Glossary	Glossary-5
Feeding	3-6	3-13
Bottle	3-6c	3-13
Spoon	3-6b	3-13
Tube feeding bolus	3-6d	3-13
Tube feeding continuous	3-6e	3-14
Fetal heart tones:		
Doppler	3-3c(2) (d)	3-5
Manual	3-3c(2) (c)	3-5
Foley catheter care	3-8e(2) (b)	3-17
Forms	2-3	2-7
Frappage with postural drainage	3-9e(2)	3-22
Fundus:		
Checks	3-4b(2) (b)	3-7
Massage	3-4b(2) (b)	3-7
Gastrostomy	3-6d(2) (b)	3-14
Glossary	Glossary	Glossary-1

	<i>Paragraph</i>	<i>Page</i>
Group activity:		
Meetings	3-18e	3-32
On nursing unit	3-18c	3-32
Off nursing unit	3-18d	3-32
Group teaching	3-19a	3-33
Hematocrit	3-8h(2) (d)	3-17
Heparin flush solution	3-7f(2) (a)	3-15
Heparin lock or Broviac catheter	3-7f	3-15
Holding—infant	3-5k(2) (d)	3-13
Hyperalimentation	3-7a(1)	3-14
Incentive spirometer or cough and deep breathe	3-9b	3-22
Incontinence care	3-5i(2) (a)	3-13
Indirect nursing care time defined	Glossary	Glossary-5
Individual teaching	3-19b	3-33
Infant circumcision/infant phototherapy	3-8q	3-20
Infant/neonate—bottle feeding	3-6c	3-13
Infusion controller/pump	3-7i	3-16
Instillation	3-8m(2) (b)	3-19
Intake and output	3-4a	3-6
Interrater reliability (IRR) testing		
Defined	Glossary	Glossary-5
Policies	4-3	4-1
Principles	4-2	4-1
Procedure	4-4	4-1
Program coordinator	1-4d	1-5
Intracranial pressure monitoring	3-4d(2) (b)	3-7
Intracranial pressure line setup or transducer exchange	3-4g(2) (b)	3-8
Intravenous bottle/bag change	3-7c	3-14
Intravenous infusion:		
Blood	3-7h	3-16
Hanging IV piggyback bottle	3-7g(2) (b)	3-15
Initiating	3-7b(2)	3-14
IV catheter care	3-7c(3)	3-14
IV push medication	3-7g(2) (a)	3-15
Platelets or plasma	3-7h(2) (b)	3-16
Intravenous medication:		
Piggyback and push	3-7g	3-15
Intravenous/arterial line—blood sample	3-8j(2) (b)	3-18
Intravenous therapy	3-7	3-14
IPPB:		
Treatment	3-9c	3-22
Irrigation	3-8m(2) (a)	3-19
Irrigations/instillations	3-8m	3-19
Isolation, gown, and gloves	3-8r	3-20
IV bottle change	3-7a(4)	3-14
IV therapy	3-7	3-14
Joint Commission on Accreditation of Healthcare Organizations defined	Glossary	Glossary-3
Laboratory tests:		
Performed on the unit or collected for laboratory	3-8h	3-17
Labor check/evaluation	3-4b(2) (b)	3-7
Legal implications of the WMSN	1-5	1-7
Life-styles modification	3-11c	3-23
Lumbar puncture	3-8s(2) (b)	3-20
MACOM chief nurse	1-4i	1-6
MACOM reporting requirements	2-7b	2-8

	<i>Paragraph</i>	<i>Page</i>
Manpower Staffing Standards System (MS-3)	5-1a	5-1
Application	5-2	5-1
Personnel requirements charts	app B	B-1
Personnel requirements defined	Glossary	Glossary-5
Responsibilities	5-2	5-1
Staffing determination	5-5	5-3
Maximist treatment	3-9c(2) (b)	3-22
Measuring and Recording:		
Intake	3-4a	3-6
Output	3-4a	3-6
Output to drainage bottles/all types	3-4e	3-6
Urine output	3-4b	3-6
Vomiting output	3-4d	3-6
Medications:		
Exclude IV	3-8k	3-18
Intramuscular	3-8k(2) (b)	3-18
Oral	3-8k(2) (a)	3-18
Subcutaneous	3-8k(2) (e)	3-18
Sublingual	3-8k(2) (d)	3-18
Topical	3-8k(2) (c)	3-18
Mental alertness	3-4c(2) (b)	3-7
Mist tent	3-9d	3-22
Modification of life-styles	3-11c	3-23
Monitoring	3-4	3-6
Motor or sensory testing	3-4c(2) (e)	3-7
MTF defined	Glossary	Glossary-2
MTF reporting requirements	2-7a	2-8
Nasogastric Tube:		
Continuous with infusion pump	3-6e(2) (b)	3-14
Enteral hyperalimentation feeding	3-6e(2) (a)	3-14
Insertion	3-8b	3-16
Neurological checks	3-4c	3-7
New admission:		
Assessment and orientation	3-8v	3-20
Nose drops	3-8k(2) (i)	3-19
Nurse methods analysis	1-4g	1-6
Nursing care hour requirements defined	Glossary	Glossary-5
Occult blood testing—feces or vomitus or GI drainage	3-8h(2) (c)	3-17
Off nursing unit telemetry	3-4e(2) (b)	3-7
On demand report capability	2-8	2-9
Oral gastric tube	3-6d(2) (c)	3-14
Oral temperature, pulse and respirations	3-3a(2) (a)	3-4
Oral-jejunostomy tube	3-6e(2) (c)	3-14
Orientation	3-4c(2) (c)	3-7
Other activities requiring 15 min	3-8y	3-21
Other activities requiring 30 min	3-8y	3-21
Other activities requiring 45 min	3-8y	3-21
Other required activities	3-17n	3-32
Output weight, diaper, or bed linens	3-4a(2) (f)	3-6
Oximeter	3-4f	3-7
Oxygen administration:		
Mask	3-9a(2) (b)	3-21
Mist with collar or face tent	3-9a(2) (d)	3-21
Nasal	3-9a(2) (c)	3-21
Prongs	3-9a(2) (a)	3-21
Ventilator	3-9g(1)	3-22

	<i>Paragraph</i>	<i>Page</i>
Oxygen therapy or oxyhood	3-9a	3-21
Oxyhood—application or replacement	3-9a(2) (e)	3-21
Paracentesis	3-8t	3-20
Parenteral hyperalimentation	3-7a(1)	3-14
Patient acuity worksheet	2-3a	2-7
Defined	Glossary	Glossary-5
Patient checks	3-14c, d	3-25
Patient classification system defined	Glossary	Glossary-5
Patient controlled analgesia machine	3-7a(6)	3-14
Patient requiring 1:1 coverage	3-12b	3-23
Patient requiring greater than 1:1 coverage	3-12c	3-24
Patient/family emotional support	3-11b	3-23
Pedal pulses or femoral pulses or popliteal pulses or fetal heart tones	3-3c	3-5
Pediatric recreation and observation:		
Children 0 to 12 years of age	3-5k	3-13
Phototherapy treatment	3-8q(2) (b)	3-20
Planned recreational activity session	3-5k(2) (a)	3-13
Points defined	Glossary	Glossary-5
Post-operative vital signs or post-partum vital signs or post-delivery newborn vital signs	3-3e	3-6
Pre-operation teaching	3-10c(2) (a)	3-23
Pre-operation preparation	3-8c(2) (a)	3-16
Prn defined	Glossary	Glossary-3
Procedure for patient classification	2-5	2-7
Procedure for use of the UCAPERS PA module	2-6	2-7
Pulmonary artery pressure	3-4i(2) (a)	3-8
Pulmonary artery pressure wedge	3-4i(2) (b)	3-8
Pulse:		
Apical	3-3b	3-5
Doppler	3-3c(2) (b)	3-5
Pedal or femoral or popliteal	3-3c	3-5
Oximeter	3-4f(2)	3-8
Pupil reflexes	3-4c(2) (a)	3-7
Purposeful interaction	3-18a	3-32
Random numbers table	table 4-2	4-2
Range of motion exercises	3-8u	3-20
Rectal temperatures or axillary temperatures or apical pulses	3-3b	3-5
References	app A	A-1
Reinforcing dressing	3-8f(2) (b)	3-17
Reliability defined	Glossary	Glossary-5
Reports	2-9	2-9
Reporting requirements	2-7	2-8
Requirements defined	Glossary	Glossary-5
Respiratory therapy	3-9	3-21
Responding to ventilator alarm	3-9g(2)	3-23
Restraints	3-8n	3-19
ROM exercise:		
Active	3-8u(2) (a)	3-20
Passive	3-8u(2) (b)	3-20
Sensory deprivation	3-11d	3-23
Sensory discrimination	3-4c(2) (d)	3-7
Simple dressing change, x2	3-8f	3-17
Special structured teaching—group	3-10b	3-23
Specific gravity	3-8h(2) (a)	3-17
Spoon-feed meals	3-6b	3-13

	<i>Paragraph</i>	<i>Page</i>
Sputum, culture	3-8h(2) (f)	3-17
Start IV	3-7b	3-14
Suctioning:		
Endotracheal	3-9f(2) (d)	3-22
Naso-tracheal	3-9f(2) (c)	3-22
Oral	3-9f(2) (a)	3-22
Tracheostomy	3-9f(2) (b)	3-22
Sugar and acetone	3-8h(2) (b)	3-17
Support hose	3-8c(2) (d)	3-16
Suppository:		
Rectal/vaginal	3-8k(2) (f)	3-18
Swan Ganz catheter setup or transducer exchange	3-8g(4) (c)	3-8
Swan Ganz pulmonary artery pressure and pulmonary artery wedge pressure readings	3-4i	3-8
t.i.d. defined	Glossary	Glossary-3
TDA defined	Glossary	Glossary-3
Teaching	3-10	3-23
Group	3-10b	3-23
Patient/family	3-10c(2) (b)	3-23
Temperature—axillary, electronic/mercury	3-3b(2) (b)	3-5
Temperature—rectal, electronic/mercury	3-3b(2) (a)	3-5
Therapeutic interventions/activities	3-18	3-32
Thoracentesis	3-8t	3-20
Tilt Test	3-3d	3-5
Tracheostomy:		
Care	3-9h	3-23
Cleaning cannula	3-9h(2) (a)	3-23
Dressing change	3-9h(2) (b)	3-23
Transcutaneous monitor	3-4f(1)	3-8
Transcutaneous monitor/oximeter	3-4f	3-7
Transfer—in-house:		
Assessment and orientation	3-8w	3-21
Between psychiatric units	3-17l	3-31
Treatments, procedures, and medications	3-8	3-16
Tube care	3-8e	3-17
Tube feeding:		
Bolus	3-6d	3-13
Continuous	3-6e	3-14
Turning frame:		
All types	3-5j	3-13
Urine specimen:		
Clean catch/Foley	3-8h(2) (g)	3-18
Routine	3-8h(2) (g)	3-18
Uses of WMSN data	1-3	1-3
Venipuncture:		
Arterial puncture	3-8j(2) (c)	3-18
Blood sample	3-8j(2) (a)	3-18
Ventilator	3-9g	3-22
Visiting with patient or purposeful interaction	3-5k(2) (c)	3-13
Vital signs	3-3	3-4
Vital signs (manual temperature, pulse, respiration, and blood pressure)	3-3a	3-4
Volutrols	3-7a(5)	3-14

	<i>Paragraph</i>	<i>Page</i>
Workload Management System for Nursing (WMSN)		
Accountability	1-4	1-4
Archiving WMSN data	2-11	2-26
Automated system	2-6	2-7
Concepts	1-2	1-2
Defined	Glossary	Glossary-6
Forms	2-3	2-7
Legal implications	1-5	1-7
Print utility	2-10	2-26
Program manager	1-4 <i>k</i>	1-6
Reports	2-9	2-9
Reporting requirements	2-7	2-8
Uses of WMSN information	1-3	1-3

By Order of the Secretary of the Army:

Official:

THOMAS F. SIKORA
Brigadier General, United States Army
The Adjutant General

CARL E. VUONO
General, United States Army
Chief of Staff

Distribution:

To be distributed in accordance with DA Form 12-11E, block 4800, requirements for FM 8-501.

WORKLOAD MANAGEMENT SYSTEM FOR NURSING

Interrater Reliability (IRR) Testing

For use of this form, see FM 8-501; the proponent agency is the OTSG.

SEE INSTRUCTIONS
ON REVERSE BEFORE
COMPLETING.

1. Hospital	2. Unit	
3. Date	4. IRR Rater	
5. Sample Size Selection Table	Unit	Sample Size
	≤ 5	all patients
	≥ 6 and ≤ 20	6
	≥ 21 and ≤ 30	7
	≥ 31 and ≤ 40	8
	≥ 41	9

6. Category Agreement

$$\frac{f}{e} \times 100\% = \frac{f}{e} \times 100\% = \text{ \% Agreement}$$

Provide the MEPRS Office with this IRR Category Agreement score and the date.

[illegible]

7. Critical Indicator Agreement

a. Patients											Total Agreed d.	Max Poss e.	% Agreed f.
b. Factor	c. #												
g. Overall Totals													
8. Notes on Differences.													

INSTRUCTIONS FOR COMPLETION OF DA FORM 5391-R

1. Hospital: Name and location of hospital.
2. Unit: The alpha/numeric description of the nursing unit.
3. Date: The date of the IRR test.
4. IRR Rater: The signature of the person conducting the test is necessary for accountability.
5. Sample Size Selection Table: Select the sample size based on the unit census. Use the table provided.
6. Category Agreement: Compute the percentage of category agreement by dividing the total number of category agreements (6f) by the total number of patients in the sample (6e). Convert this number to a percentage by multiplying by 100.
 - a. Record a patient identification number (the number used to randomly select the patient) for each patient in the test sample.
 - b. Enter the acuity category for each patient determined by the unit nurse.
 - c. Enter the acuity category for each patient determined by the IRR rater.
 - d. Place an "X" mark for each patient in which both the original category and the IRR category are the same.
 - e. Enter the total sample size.
 - f. Enter the total number of category agreements.
7. Critical Indicator Agreement:
 - a. Record a patient identification number (the number used to randomly select the patient) for each patient in the test sample.
 - b. Factor: Record three factors to be analyzed, such as vital signs, ADL, and feeding. For each patient in the sample, compare each critical indicator and points ascribed by the unit staff member and the IRR rater. Identify the number of matches, i.e., the number of times both people either selected or chose not to select a critical indicator. Record this number for each patient and each category in the appropriate space.
 - c. #: Count the number of critical indicators for each of the selected factors and place in the # column.
 - d. Total Agreed: Sum the number of exact matches for all patients in the sample and enter the total.
 - e. Max Poss: For each listed factor, multiply the number of critical indicators in that factor (located in 7c # column) by the number of patients in the sample (6e) and enter the total. This indicates the maximum possible agreement count.
 - f. % Agreed: For each listed factor, divide the "Total Agreed" (7d) by the "Max Poss" (7e). Convert this number to a percentage by multiplying by 100.
 - g. Overall Totals: Sum columns 7d and 7e, and determine the overall % agreement in the same manner as 7f above.
8. Document differences, especially those which may have resulted in a different category classification.